ADVANTAGE

SERIES OF FOOD SAFETY PROGRAMS

Advantage GMP

Version 3.0

For Food Processing Operations

Book 2

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Introduction to *Advantage GMP*

Welcome to *Advantage GMP!*

By now you may have read Book 1 in this series, Introduction to the *Advantage Series of Food Safety Programs*. Book 1 outlines the entire *Advantage* program and briefly explains Good Manufacturing Practices (GMPs).

Here, in Book 2 *Advantage GMP*, we will explain GMPs in more detail including all the requirements of a complete *Advantage GMP* program and give some suggestions to get you started.

You may have several reasons for adopting GMPs.

1. You want to improve food safety at your facility.
   - ✓ Adopting *Advantage GMP* whole or in part will improve food safety at your facility

2. Your customers are starting to ask about your food safety program.
   - ✓ Adopting *Advantage GMP* whole or in part demonstrates to your customers that you are committed to improving food safety and are working on adopting a GMP and/or HACCP program
   - ✓ Adopting *Advantage GMP* means that you will have the procedures and records to demonstrate to your customers that you have a food safety program

3. Your customers are requiring that you have a HACCP program.
   - ✓ Adopting *Advantage GMP* and then *Advantage HACCP* means that you have HACCP
   - ✓ Getting certified in *Advantage HACCP* further demonstrates to your customers that you have a HACCP program and you are committed to food safety

4. Your customers are requiring that you have a GMP/HACCP program audited/certified by a third party (e.g. an external, independent auditing organization).
   - ✓ Adopting *Advantage GMP* means that you will have a GMP program (or "prerequisite program") based on industry accepted practices which should meet the requirements of a third-party GMP audit
   - ✓ Adopting *Advantage HACCP* means that you will have a HACCP program that is based on the international Codex principles which should meet the requirements of a 3rd party HACCP audit

5. Your customers are requiring a specific HACCP program (e.g. BRC, SQF, ISO 22000, AIB, *Advantage HACCP*).
   - ✓ Adopting *Advantage GMP* and then *Advantage HACCP* means that you will have a HACCP program that is based on the international Codex principles which should meet the requirements of the HACCP portion of other programs. You may need to add to your *Advantage HACCP* program to meet the specific requirements of a program. For example, both BRC and SQF have requirements for quality controls that are not included in the *Advantage HACCP*.

6. Your customers are planning on auditing your food safety (GMP/HACCP) program themselves.
   ✓ Adopting *Advantage GMP* and then *Advantage HACCP* means that you will have a HACCP program that is based on the international Codex principles which should meet any customer requirements for HACCP

Since you must have GMPs developed before HACCP Plans, other programs often call them "prerequisite programs". To keep it simple, we have just called them GMPs throughout this book.

GMPs are the day-to-day activities put in place at food processing facilities to improve food safety. They are activities that control food safety hazards introduced by personnel and the environment. To better understand this, picture your facility for a moment, and imagine all of the hazards that could be introduced, not by your production process but by your personnel or the surroundings. Some things that might come to mind include:

- Personnel (e.g. sneezing, illness, dirty hands, dirty clothes, jewellery in product)
- Environment (e.g. dirty or corroded equipment, non-potable water, pests, poor ventilation, damaged packaging, ingredients received in poor condition)

GMPs are designed to prevent, eliminate or reduce food safety hazards. The idea is to not only do all of the right things to decrease the chance that a problem could occur, but also to constantly be checking your operation so that you can catch problems early. We live in the real world where things don't always go according to plan; shipments get damaged, coolers breakdown, etc. GMPs are designed to work in a system where things aren't always perfect, in fact if you aren't finding problems it means your GMPs aren't working properly. Catching and correcting problems means that your GMPs are working exactly as they should.

Food safety hazards can be categorized into one of three groups; biological, chemical or physical.

1. **Biological** hazards are those caused by micro-organisms such as bacteria, viruses, parasites and moulds. There are many micro-organisms that do not cause harm to humans but those that can cause illness are referred to as "pathogens". Some examples of biological hazards are *Salmonella* spp, Norwalk virus and *Cryptosporidium parvum*.

2. **Chemical** hazards can be naturally occurring or can result from accidentally or intentionally adding (too much or too little) chemical. Some examples of chemical hazards are poisonous mushrooms, pesticides, unrinsed cleaning chemicals, too much sodium nitrate and peanuts. In the *Advantage* program allergens, such as peanuts, are considered a chemical hazard.

3. **Physical** hazards are objects found in food that can cause injury. Physical hazards can be from the environment or could be part of the food itself. Some examples of physical hazards are wood slivers, glass, metal shavings and bone pieces.

GMPs control hazards introduced by personnel and the environment. They do not control hazards associated with the production process or ingredients. Those hazards are addressed by the HACCP Plan which is completed after GMPs. Book 3 *Advantage HACCP* describes the requirements of a HACCP Plan.

GMPs are practices that create a safe food processing environment regardless of what you process; therefore the requirements for GMPs are similar from facility to facility whether you make bread or sausage, juice or yogurt. It's how GMPs are addressed that can be quite different.

Because GMPs require an in-depth look at all areas of your operation, you can't help but make improvements that aren't related to food safety. For example, studies have shown that product shelf-life and plant efficiency can increase while waste can decrease with the adoption of GMPs.

GMPs also require involvement of all employees for training and monitoring purposes. This increase in management/employer involvement improves employee-employer relationships which can have widespread benefits. Among other benefits, companies with good employee relationships enjoy higher employee morale and lower employee turnover rates. Employees in such facilities feel greater ownership of the operations of the facility.

As mentioned earlier, GMPs come before HACCP Plan(s). GMPs address your production surroundings and set the stage for HACCP where you will delve into your specific production process. You can have GMPs at your facility without having HACCP Plan(s), but you cannot have HACCP Plan(s) without GMPs. Well written GMP programs make developing HACCP Plans much easier.

The majority of food safety hazards in any facility come from personnel and the environment. For GMPs to control all such hazards, they must be thorough and include all areas of the facility. GMPs are the largest part of any food safety program and take the longest time to implement, but once in place, GMPs control most of the hazards in your facility. Having complete GMPs in your facility is a big accomplishment and a giant leap in the right direction, so to recognize this accomplishment the *Advantage Series of Food Safety Programs* offers certification in GMPs. For more on certification, see Book 5 *Preparing for an Audit*.

Basics of GMPs

Food facilities are often already performing many of the activities required by GMPs but don't have them written down. GMPs require that all practices be documented and activities be recorded.

For GMPs to be effective you must:

- Write down what you do (Develop)
- Train employees how to do what is written (Implement)
- Verify that employees do what they've been trained on (Maintain)

Writing down your GMPs is important because it provides a foundation to build on. By writing down all of your food safety activities you can be sure nothing is missed and that all personnel are doing the same thing. You also have documents to reference over time to make sure that you are always doing all the necessary activities. If you only rely on training by word-of-mouth, some aspects can be lost over time and it will be difficult to keep activities consistent. Writing detailed policies and procedures also demonstrates, to auditors and customers, all of the measures you are taking to protect food safety.

Training employees on your GMPs is important because it turns your written program into reality. Training is the only way to ensure that food safety activities are carried out consistently. Training ensures that personnel know the role they play in food safety by minimizing the significant hazard presented by personnel.

Verifying your GMPs is important because it ensures that your written program is still being followed over time. It gives early warnings of any problems and allows you to detect issues that are becoming a trend. Verification also provides proof that your GMPs have been implemented which is required for certification, as well as for customers, suppliers, insurance companies or anyone else with an interest in your facility. GMP verification is how you can clearly demonstrate due diligence if the need ever arises.

What is due diligence?

Due diligence is the actions that you can reasonably be expected to take to prevent harm to your customer. In other words, you demonstrate your due diligence by doing everything that you can reasonably do to prevent hazards in your product. GMPs and HACCP are one of the things that you can reasonably be expected to have in place to protect your customer. Due diligence are actions that you take before an incident. These actions are voluntary but without them you could be considered negligent because you did not do everything you could.

Advantage GMP Structure

GMP Sections

The *Advantage GMPs* are divided into 9 sections:

1. Personnel
2. Receiving & Shipping
3. Handling
4. Sanitation
5. Preventative Maintenance & Calibration
6. Pest Control
7. Recall
8. Water
9. Environment

Glossary

At the back of this book is a glossary of words and acronyms used throughout this book. If you forget what a word, acronym or short-form means, go to the glossary.

Each of the 9 sections has multiple standards. Each standard requires you to develop part of your program by writing policies, procedures and/or records. Each section starts with standards requiring you to write policies and procedures for the person performing the food safety activity, labelled "P"; followed by standards requiring you to write procedures for training the performers, labelled "T" and finally standards requiring you to write procedures for verifying the activities being performed, labelled "V". For example, in the Sanitation section, the standards appear in the following order:

- Cleaning and Sanitizing P4.1
- Pre-operational Inspection P4.2
- Sanitation Training T4
- Sanitation Verification V4

The first two standards require a policy or procedure for the person performing the sanitation activities, the third standard requires training and the last standard requires verification.

Program Structure

Once you have trained your personnel and your *Advantage GMP* program is up and running you can think of it as having two levels of people.

1. "Performer"

- This person performs and/or monitors a food safety activity
- This person is usually a front-line employee
- Sometimes this person simply performs the activity without completing a record (e.g. an employee washes their hands, Personnel section). Other times the activity includes completion of a record (e.g. a receiver inspects a truck, Receiving & Shipping section).
- The "P" standards require instructions for these performers

2. "Verifier"

- This person verifies that the performer completed the food safety activity as written
- This person is often a supervisor or lead hand, but not the same person as the performer
- Verification includes completion of a record
- The "V" standards require instructions for these verifiers

What can become difficult, particularly in small facilities, is having a performer and verifier that are different people. You don't need a lot of staff to make this work. As long as you have one person to perform the activity and one person to verify that the procedure is being followed, you can meet the requirements of *Advantage GMP*. Also, keep in mind that the verifier doesn't always need to be the same person. For example, as long as they are trained, a sanitation worker can verify the shipper's tasks and records and the shipper can verify the sanitation worker.

What do we mean by "program"?

Program is a general word used to describe portions of, or all of your GMPs. For example:

- "GMP program" means the complete set of policies, procedures, activities, records, lists and schedules for all of the GMP standards
- "Written program" means just the written portion (policies and procedures) of your GMPs
- "Training program" means all training procedures, records, lists and activities
- "Pest control program" means all procedures, activities, records, lists and schedules associated with the pest control section of your food safety program

Standards

Each of the 9 GMP sections consist of several standards. Each of the standards is set up in the same way and look like this:

1. Title of the section

2. Standard: they are always in a blue box. You must meet *all* of the requirements listed within this blue box to meet the standard. When you are audited to become certified, the auditor will be checking to make sure that you have everything listed in the blue box.

3. Standard Identification: each standard is identified with a letter and number

4. Suggestions to meet the standard: this area lists some things to consider when developing your program and gives some ideas for what to do to get started. As you can tell from the title, these are just suggestions, you do not have to do everything listed in this area, and there may be other things, not listed here, that you will have to do to meet the standard. However, you should pay close attention to these suggestions because they are generally what is needed to meet the standard in the blue box.

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P3 Handling

Handling & Storage P3.1

Written handling and storage policies, procedures and corresponding records are in use for all food, ingredients, processing aids and packaging materials. The policies include:

- Preventing cross-contamination and damage during storage, handling and movement through the facility
- Storing food, ingredients, processing aids and packaging material and their containers off the floor and away from the wall
- Storage rotation based on expiration date and/or shelf-life

The procedures include keeping a current inventory of all finished product.

"Handling" is a general term which describes transporting, processing or storing; food, ingredients, processing aids and packaging materials; within in the facility

Suggestions to Meet the Standard

Develop a handling policy

- Food, ingredients, processing aids and packaging material should be securely covered when stored or moved through the facility to prevent cross-contamination
- Different areas of the processing facility should be designated for the purpose of storing and handling dry, refrigerated or frozen items (see Example 1)
    - Food, ingredients, processing aids and packaging material should not be stored in processing areas. Only packaging material currently being used should be put in processing areas and removed before cleaning and sanitizing starts.
- Refrigerated or frozen food and ingredients should go directly to the designated refrigerator or freezer
- Humidity sensitive ingredients should go directly to the designated dry storage with humidity control
- Develop handling instructions for food, ingredients, processing aids and packaging materials that have fallen on the floor or have been otherwise contaminated
- Develop instructions for handling and storing products to be reworked
- Develop instructions for handling and storing allergens, see P3.3 Allergen Control for more information
- Food, ingredients, processing aids and packaging material should be on a skid, rack or piece of equipment (e.g. table, cart) to prevent it from touching the floor
- All skids, racks and equipment should be stored away from the wall to prevent the harbourage of pests and to enable inspection for contamination and damage. The inspection for pests will be covered under P6.1 Pest Control.
    - Distance from the wall should easily permit a person to sweep and visually inspect the entire length of the storage area

Standard Identification

Each standard is identified with a letter and numbers. The letter indicates the type of standard. Performer instructions (P), training (T) or verification (V). In this case, this standard requires performer instructions.

P3.3
↑

The first number indicates which of the 9 GMP sections it belongs to. In this case, the standard belongs to the third section which is Handling.

P3.3
↑

The number after the decimal indicates the order of the standard. In this case, this standard is the third performer standard in the Handling section, which is Allergen Control.

P3.3
↑

Each of the 9 GMP sections has a tab in the book. Each section has several standards; one or more for performer instructions, one for training and one for verification. Following the standards in each tab are several examples for each standard so you can see what is required. These are meant to be a useful tool to help you visualize what is needed to meet each standard, however they are not specific to your facility and therefore you should not simply copy them from the book.

Examples

Each section of this book consists of standards followed by examples, which are all highlighted in grey. Each standard has one example procedure and one example record provided, where appropriate. And where appropriate there are also example lists and schedules. These examples are meant to give you an idea of what is intended by each standard and what a program looks like. As these are just examples and are completely made up; the specifics listed such as frequency, times, temperatures and concentrations should NOT be taken as a guide. You must develop these details for your individual facility, based on risk.

EXAMPLE 2
Preventative Maintenance Procedure

Also, the examples in this book do not represent a complete program and shouldn't be taken as such. Because the examples are not meant to be a complete program and are just meant to give you an idea of what a program should look like, they often include "continued…" at the bottom. Whenever you see this it indicates that the procedure or record would, in reality, continue on in a similar fashion but has not been included in the example.

To further demonstrate how a record could be used, some of the example records have been completed as if someone has filled it out. Wherever you see *a hand-writing style font like this* in the example records, it represents where someone would write on the record and what they might write.

The examples provided are just one way of writing your procedures and designing your records. There are many, many ways to organize and format your documents as long as they have all of the required information discussed below. For clarity we have not combined any of our procedures or records with documents from other standards, however this is something you almost certainly will want to do, to make your documents easier to use.

Meeting the Standards

Procedures

Most of the standards require that you write procedures; instructions for how to do the food safety activities in your facility. For every procedure you write must have the following information:

- **Who**
  - The title of the person that will be performing the procedure. This should be a job title rather than a person's name, so the responsibility will fall to the back-fill if the assigned person is absent.
- **When**
  - How often (frequency) the procedure will be performed. This may change over time particularly in the early stages of your program, as you figure out what is an appropriate frequency.
- **What**
  - The step-by-step instruction to perform the procedure. This should be written with enough detail that someone unfamiliar with your operation could come in and perform the activity just by reading the procedure.
- **Deviations**
  - A list of things that could go wrong while performing the procedure. This list is simply to prepare the person following the procedure as best as possible for things that are most likely to go wrong. See page 9 for more information on deviations.
- **Corrective Actions**
  - Steps that should be taken to correct each of the deviations listed. These steps should be instructions for what to do if each of the deviations occur and should include who to report the incident to and what to do with any affected product. You should also indicate when to investigate the root cause of a deviation. See page 9 for more information on corrective actions and page 13 for more information on root cause analysis.
- **Records**
  - The record that must be completed when following the procedure. With the exception of some Personnel and Handling standards, all standards require that records be kept. Some procedures might have more than one associated record, or they might have records combined with records from other standards. The procedure may also involve lists and schedules. All records, lists and schedules associated with the procedure, should be listed. See page 11 for more information on records.

You must include all of this information when writing each and every procedure for your GMPs, therefore it is often helpful to make a template including the above information, to be used to meet the requirements of all the standards. Then you will know that no required information has been left out. There are many example procedures provided throughout this book and you will notice that all of them include Who, When, What, Deviations, Corrective Actions and Records in one format or another.

What's the difference between a procedure and a policy?

Most of the GMP standards require that you write procedures but a few standards require a policy. A procedure is a set of step-by-step instructions, to be followed by a specific, designated person. Procedures always have a record that must be completed. A policy, on the other hand, is a general statement usually for a group of people and there is no record to be completed. Consider some examples:

- A sanitation cleaning **procedure** includes specific instructions, step-by-step, to be followed by sanitation staff. There is a sanitation record to be completed.
- A personnel **policy** includes statements about how all employees, visitors and contractors will behave. There is no record to be completed.

Deviations and Corrective Actions

Every GMP procedure includes a list of what could go wrong (deviations) and what the person performing the task should do if the deviation occurs (corrective action). Having well thought out deviations and corrective actions is extremely important because it allows you to be prepared when things inevitably go wrong. Deviations and corrective actions are extremely important but are often overlooked. The task of writing deviations and corrective actions may seem difficult or confusing. You don't need to include anything and everything that might go wrong, only things that are likely to happen. You probably already have a good idea of the common problems that occur and what to do about them.

When writing your procedures and brainstorming what potential deviations could occur and their corrective actions, ask yourself three questions:

1. **What could go wrong while following the procedure?** Deviations are problems that the performer could encounter while following the procedure. For example a deviation while performing the Receiving procedure could be "truck temperature is too high". Deviations are not things that the performer does wrong, such as not following the procedure properly, but rather, things that the performer finds to be wrong. The person performing the task is not checking themselves, so it's not realistic to think they would catch them self doing something wrong. These deviations, such as "employee forgot to take truck temperature" should be included in the verification procedure.

   Corrective actions often include generic instructions that require the performer or someone with appropriate authority to make an on-the-spot decision as to the best way to get the deviation corrected. For example, while performing the receiving procedure, you find the truck temperature is too high (deviation) so the corrective action could be reject the load and inform the Shipping Supervisor.

2. **What if food safety may have been compromised?** This is a deviation. What should the person performing the procedure do if the safety of the food, ingredients, processing aids or packaging materials may have been affected? This is where it is often appropriate to refer to your Defective & Suspect Items and Food Safety Assessment procedures. There will be more on this in the next few pages.

3. **What if the deviation is recurring?** What should the person performing the procedure do if this deviation happens repeatedly? This is where it is often appropriate to refer to your Root Cause Analysis tool (more on this tool in the next few pages) to fix the underlying reason for the deviation.

You should address all of these questions and include corrective actions for each deviation when writing your procedures. To make sure you don't forget any of the above questions, consider including them in your procedure template. All of the example procedures in this book, address the above questions and include the associated deviations and corrective actions if appropriate, often in a table.

When training employees on procedures and completing records make sure you include training specific to deviations and corrective actions. The deviations and corrective actions listed in the procedure are not the only deviations and corrective actions that could occur. Employees must know to record all deviations and what they did to correct them.

Corrective actions must accomplish three things:
1. Regain control of the hazard
2. Control any affected product and determine the appropriate disposition
3. Correct the root cause of the problem to prevent a recurrence of the deviation

To illustrate the above three points suppose that a pallet of chemicals is found in the raw meat cooler. This is a cross-contamination risk and a violation of a GMP policy. In this instance, the facility should take the following corrective actions.

1. Regain control of the hazard
    - Immediately move the chemicals from the raw meat cooler to the chemical storage room

2. Control affected product and determine disposition
    - Perform a Food Safety Assessment to decide what to do with the affected raw meat, e.g. release, rework or disposal. This will involve examining all raw meat that was near the chemicals for evidence of contamination.

3. Correct the root cause
    - Perform a Root Cause Analysis and take steps to correct the root cause, such as:
        - Retrain all normal and backup shipping and receiving personnel on all proper receiving and storage procedures
        - Expand the current chemical storage area or build another
        - Have receiving personnel sign off on the correct storage of all hazardous materials

Things to remember when performing corrective actions:

- Each corrective action completed should be properly recorded on the appropriate record and in the Logbook if changes to the program were required
- If the deviation cannot be corrected immediately, it should be assigned a time frame for completion, at which time the corrective action is reviewed and closed if effective. If the corrective action is ineffective, new corrective actions will have to be devised and then implemented.
- Responsibility to complete each corrective action should be assigned to a specific individual or group of individuals. Someone needs to be responsible for its completion.

Records

Every procedure in GMPs will have at least one associated record. Records are the documents that personnel actually write on including the date, signature, checks, deviations that actually happened and corrective actions. This book includes example records for each example procedure but remember that your records can and should be designed and combined to suit your operation. Well designed records that combine all of the tasks performed by one person or in one area, streamline the record-keeping process and increase the likelihood that the record will be completed properly.

Records provide the proof that you have been doing all of the food safety activities that you say you have. Therefore records are extremely important and must be completed properly every time. While you should customize your records to your facility, there are some common record-keeping rules to follow.

- Only trained personnel responsible for the specific task should complete records
- Never record data in pencil
- Never erase, white-out or scribble over (instead draw one line through the mistake, correct and initial the change)
- Never postpone making a data entry or rely on memory
- Never fabricate data entries
- Never pre-record data or photocopy a partially completed record
- Always sign and date the record in pen
- Include specific instructions for recording information, such as;
    - The format to use for the date, e.g. YYYY-MM-DD
    - Whether a "✓", an "X", a "Yes" or "No" is to be used
    - Whether the record should be signed or initialed

Your completed records are your proof, so how long should you keep them? You can keep them for as long as you like but space will probably become a problem. The rule of thumb is to keep your records for the length of your product's shelf life or two years, whichever is longer. No matter how long you choose to keep your records, remember that your program, and proving it is working, is your responsibility. Make sure you feel confident doing this with the records you have kept.

Lists and Schedules

Some of your GMP procedures will also have associated lists and schedules. Some may be required (e.g. a training schedule), some you simply might create because they are helpful (e.g. list of equipment requiring preventative maintenance). Lists and schedules are created when you are writing your program and usually are only changed when something in your operation changes (e.g. a new piece of equipment is added). Unlike records, lists and schedules are generally not written on, however you can combine your lists, schedules and records in any way that makes sense for your facility.

Overall Program Standards

In addition to the 9 GMP sections (Personnel, Receiving & Shipping, Handling, Sanitation, Preventative Maintenance & Calibration, Pest Control, Recall, Water and Environment) this book also includes tabs for Food Safety Management System, Document Control and Program Review. These tabs are set up much like the tabs for the GMP sections including standards pages and examples.

Food Safety Management System

The Food Safety Management System (FSMS) requires that you have a policy and procedure for making sure you are up to date with all food safety laws that apply to your facility. Your FSMS policy must also demonstrate that the people in charge at your facility are committed to the GMP program. When food safety programs fail it is usually traced back to management that is not fully committed to the program. Therefore, it is a requirement of the *Advantage GMP* program, that management make a commitment statement. For more on Management Commitment see page 16.

Document Control

Document Control requires that you have a way of controlling which documents are used in your facility. As your GMPs are developed, the number of procedures and their corresponding records will grow and overtime, changes will be made to both the procedures and records. You must have a system in place to ensure that only the correct, most up-to-date documents are being used and that all obsolete documents and blank records are replaced.

Program Review

Program Review requires that you schedule a review of your entire written program to make sure that it is still meeting requirements of the *Advantage GMP* standards and that the written program still makes sense for your facility. The Program Review also requires that you review your entire training program and records to make sure; that it still matches your written program, that records have been completed properly and all employees have been trained in the appropriate areas.

Tools to Help You Meet the Standards

Root Cause Analysis

A root cause analysis is a tool that is used throughout your food safety program when a deviation or similar deviations occur repeatedly. A root cause analysis is used to determine why a problem keeps happening over and over, so you can fix the underlying issue. When listing deviations and corrective actions in your GMP procedures you should indicate that a root cause analysis will be completed when deviations are recurring. You will see examples of this throughout the example procedures provided in this book. Your root cause analysis should include:

- Who is responsible for performing the root cause analysis
- When the root cause analysis should be performed
- Instructions for conducting the analysis
- A record where the outcome of the root cause analysis is to be recorded

With a little research you can find all kinds of root cause analysis tools. The simplest is the "5 Whys", in which you simply define your problem and ask "why?" five times to get to the root of the problem.

An example of a complete root cause analysis using the "5 Whys" is given here:

XYZ Food Facility	Root Cause Analysis	
	Written By: A. Smith	Code: RCA

Who:	Food Safety Coordinator performs the root cause analysis
When:	Whenever a food safety incident/deviation is recurring
What:	
Define the deviation: *a puddle of brown water was found on a conveyor belt during the pre-operational inspection for the last 4 days*	
Why? *The roof is leaking directly above the conveyor*	
Why? *The roof is in very poor condition*	
Why? *The roof has not been inspected by maintenance for months*	
Why? *Maintenance was unaware the roof needed to be inspected*	
Why? *The roof was not listed in the environmental monitoring checklist*	
Immediate action taken: *- maintenance temporarily fixed the leak* *- area re-washed, inspected for cleanliness and sanitized before starting production* *- contractors scheduled to come on August 30, 2008 to permanently fix roof*	
Action taken to correct the root problem: *- the environmental checklist was updated to include an inspection of the roof August 28, 2008* *- the logbook was updated to include this change August 28,2008* *- the relevant maintenance staff were retrained on their environmental monitoring duties August 30, 2008*	
Food Safety Coordinator's Signature: *C. Popowski*	**Date:** *August 27, 2008*

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Food Safety Assessment

You'll see that the second Handling standard P3.2, requires that you have a procedure for dealing with food, ingredients, processing aids or packaging material that is or could be unsafe. This is a "Control of Defective & Suspect Items" procedure, which facilities often call a "Hold" procedure. However, putting the suspected items on hold is only the first step. After putting items on hold, you must have a way of deciding what to do with them. We call this decision-making tool a "Food Safety Assessment".

A Food Safety Assessment is a tool that should be used whenever food is suspected to be unsafe. Use it to assess whether food is unsafe and to decide what to do about it. When listing deviations and corrective actions in your GMP procedures you should indicate when to put items on hold and complete a Food Safety Assessment. You will see examples of this throughout the example procedures provided in this book.

Your Food Safety Assessment should include:

- Who is responsible for performing the Food Safety Assessment
- When to perform the Food Safety Assessment
- Instructions for determining if food safety has been compromised (often a set of questions, things to consider or a decision tree)
- Instructions for what to do once the product's disposition has been determined

To summarize, you must:

1. First, control suspected items by putting them on hold (Control of Defective & Suspect Items procedure, often called a Hold procedure, developed in P3.2)
2. Secondly you must decide what to do with them (Food Safety Assessment)

The examples provided for P3.2 Control of Defective & Suspect Items (pages 104-107) show an example of a "Hold" procedure that directs the personnel to perform a "Food Safety Assessment" which is also provided.

Controlling Cross-contamination

Cross-contamination is the transfer of hazards (biological, chemical and physical) from any source to food, ingredients, processing aids or packaging material. Hazards can come from many sources including contaminated incoming ingredients, chemicals, allergens and pests. Hazards can be transferred in many ways including personnel's hands, clothing, equipment and utensils.

Controlling cross-contamination; or in other words, controlling the transfer of hazards; is addressed throughout the 9 GMP sections. Controlling cross-contamination is accomplished using a combination of two approaches.

1. **Physical controls.** Physical controls are just what they sound like; a physical barrier or restriction put in place to prevent the transfer of hazards. Some examples of physical control of cross-contamination include:
   - receiving incompatible items at separate receiving locations
   - separating incompatible activities by room, e.g. raw product in one room and cooked in another
   - installing a physical barrier such as a partition wall to direct traffic flow in a certain pattern, e.g. putting up a partition wall so that personnel must walk past the hand wash stations before entering production
   - Installing boot washes between areas containing incompatible activities, e.g. at the door between the raw and cooked area
2. **Operational controls.** Operational controls are rules and polices put in place to prevent the transfer of hazards. Some examples of operational control of cross-contamination include:
   - separating incompatible activities by time, e.g. only receive allergens after 2 pm when receipt of all other ingredients is complete for the day
   - using a colour coding system to be followed by all personnel, e.g. a designated colour for bins and utensils used for allergen containing product and coloured smocks for personnel that work with allergen-containing product

Getting Started

GMPs can seem overwhelming, where do you get started? GMPs can take months or more to complete. Be prepared for a long-term project. Trying to complete your GMPs with a short deadline can lead to corner cutting and can lead to failure. Plan ahead and prepare to complete your GMPs over a long period of time with clear milestones.

As the Food Safety Coordinator you need:

- The ability to lead a team – GMPs involve all areas of the plant and it is the Food Safety Coordinator's job to lead a team of people from each area
- Food safety knowledge – the Food Safety Coordinator doesn't need to know all areas of the plant in detail but must be able to work with area experts to incorporate food safety
- GMP knowledge – the Food Safety Coordinator will be responsible for leading the development of GMPs and will be looked to as the facility expert on GMPs. Attending *Advantage GMP* training is one way of gaining this knowledge
- Training skills – while others may be involved, the responsibility of training will ultimately fall to the Food Safety Coordinator; being able to present and clearly explain concepts and get employee buy-in is crucial

- Writing skills – as mentioned earlier GMPs involve documenting many food safety activities, these will only be truly effective if they are well written with clear and simple language
- Time management skills – often as the Food Safety Coordinator you will have other roles within the facility

Steps to Getting Started

1. Get management commitment
2. Form a GMP Team
3. Get training, if necessary
4. Develop a schedule
5. Get resources
6. Start developing your GMPs

1. Get management commitment

GMPs can fail if management at the facility is not committed to the project. This could be for several reasons but most often because they are not aware of what is involved in GMPs. They may leave it up to the "technical" people at the facility and have little understanding of the size of the project. Once their commitment starts to wane it may be because they are not fully aware of the benefits that can result from all of the hard work and investment. So the first step to adopting GMPs is to make sure your management is on board. Management should be prepared to demonstrate support for the program by:

- Providing the Food Safety Coordinator, facility management and staff the time to develop and implement GMPs
- Attending important GMP Team meetings
- Providing funding for any necessary facility upgrades
- Following all GMP rules
- Upholding any disciplinary action associated with GMPs
- Being aware of the audit process and being involved in audits where appropriate

Food Safety Coordinators must come equipped with the required skills, but they also must be given the necessary support from management. All too often a Food Safety Coordinator is given the task of developing a GMP program and then is left without the necessary tools. In addition to the physical requirements of workspace and a computer, Food Safety Coordinators must be given the time and management support needed to adopt an effective GMP program.

2. Form a GMP Team

GMPs involve all areas of the facility, so it is crucial that you get the whole facility involved in the development of your GMP program. GMPs are large and often cannot be the responsibility of just one person. By forming a GMP Team from all areas of your operation you will ensure that no area is missed and that personnel throughout the facility will have input and ownership over the program.

Effective GMP Teams include representatives from Management, Production, Shipping/Receiving, Sanitation, Maintenance, Sales, Human Resources and Quality Assurance. In smaller operations, there may only be one or two people that fill all of these roles. That's okay, as long as all areas of your operation are represented on your GMP Team.

3. Get training

GMP Team members are going to need a clear understanding of GMPs. It may be necessary for the Food Safety Coordinator, GMP Team or others to get GMP training. This can be accomplished in several ways:

- GMP Team members could do their own research until they feel confident they understand GMPs. For example, after reading this book you may feel confident to dive right into your GMP program.
- The Food Safety Coordinator could get external training and then come back and train others
- All GMP team members could attend external training

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) periodically offers food safety and GMP training. Training is also offered by many private companies. There is also training specifically for management which provides benefits two-fold. First, by attending training, management demonstrate their commitment to GMPs and secondly, attending will prepare them to make an educated decision to stay committed to GMPs.

4. Develop a schedule

GMPs can be a long-term project and over time the team might lose focus. Interest and motivation can fade. To avoid this and to have a realistic time frame, develop a schedule for adopting GMPs. You can use the tasks listed in your schedule as your milestones or targets to keep your team motivated. To develop a GMP schedule the team should:

- List major tasks required
- List smaller, itemized tasks for each major task
- List tasks in order they must occur
- Set target dates for starting and completing each task
- Assign each task to the most suitable person (doesn't have to be a GMP Team member)
- Regularly review the schedule
- Update schedule (e.g. if delays affect tasks)

The trick to a good GMP schedule is setting realistic timelines. It's best to allow more rather than less time because you can't predict the roadblocks you may face.

5. Get resources

Once you have identified all of the major tasks, you should be able to form a rough list of the resources that you may need. This list will almost certainly change throughout your GMP project but having a rough list early is helpful for budgeting, predicting timelines and better prepares management for the demands of GMPs. Your list may include:

- Outside experts (e.g. consultants, engineers)
- Sanitation or pest control services
- New equipment
- Monitoring tools (e.g. thermometers)
- Construction material or services
- Supplies (e.g. hairnets, waste containers, gloves)
- Chemicals (e.g. sanitation or water treatment)
- Laboratory services or supplies

6. Start developing your GMPs

You can tackle GMPs in several different ways. One suggestion is to focus on only one of the 9 sections at a time. For example, concentrate on the sanitation section first, write the procedures, train employees, and get the program up and running before moving on to develop another section such as Pest Control. There is no order that you should complete the sections. You might choose a section to start based on which one will be easiest or which one is needed more urgently in your facility or what your customers are requiring.

Because the activities required by the GMP standards are often activities that you are already doing at your plant, it is often easiest to start by simply writing down what you already do. Then you can make changes where needed to meet the *Advantage GMP* standards. To do this, you'll need to sit down with the employee who does the activity and get their input. Not only does this make writing your procedures easier, but it also goes a long way in getting buy-in from your front-line employees. If employees have been involved in developing the procedures, they will have greater ownership and will be more likely to follow them.

Working with a Consultant

You may feel that you don't have the expertise to develop your GMP program and you may consider hiring a food safety consultant to help you. This could be a great solution and there are many companies that have worked very successfully with a consultant. But food safety consultants are not regulated in anyway (e.g. there is no licensing or official education for food safety consultants), so it's up to you to select your consultant carefully.

There is also temptation to buy a ready-made program from a consultant that is generic and not tailored to your facility. For your GMP program to work it must be written for your facility. A lot of work must go in to making sure the program is right for your facility and that everyone understands their role.

Also, after hiring a consultant do not expect them to do all of the work. You have a lot of responsibility when working with a consultant. You need to be available, involved and follow through with advice they give. The consultant is not going to be with your facility forever and you must know the program inside and out so you can successfully run it after the consultant leaves. After all, at the end of the day, you are responsible for the safety of your product and your GMP program.

A good consultant can help you:

- Identify hazards
- Write your programs
- Train staff
- Improve existing practices
- Find solutions to your problems
- Prepare for audits
- Maintain your GMP program

A good consultant will:

- Be knowledgeable about your product
- Be experienced and provide references and sample GMP programs they have written
- Spend time on-site learning about your products, facility and staff
- Work with your staff to develop food safety procedures related to their responsibilities
- Customize written procedures to your facility
- Keep your proprietary information confidential

Maintaining Your GMP Program

Maintaining your GMP program is just as important as developing and implementing it. The work isn't over when you have written and trained your employees on the program. You have to maintain it over time. If you do not, your GMP program will fail, and it will not control food safety hazards.

The good news is, if you are meeting all of the requirements of the GMP standards you will be maintaining your program. For example;

- The Food Safety Management System (FSMS) standard requires that you have a procedure to periodically check for any changes to regulations
- The Document Control standard requires that you keep a logbook of any changes to your GMP program
- Training standards require that you have a procedure for ensuring that all new employees receive food safety training and that all employees receive refresher training
- Verification standards require that records are reviewed and corrective actions are checked for completeness
- The Program Review standard requires that you review your entire program at least annually to make sure it still meets the requirements of *Advantage GMP*, that your program is still appropriate for your facility and that training is complete

While maintaining your program you will:

- Adjust frequencies – you may increase frequencies because you're finding a lot of deviations or you might lower a frequency to make it more manageable for the person responsible
- Combine records to improve efficiency – it isn't until after your records have been in use for a while that you'll notice where you can combine records, or even change who is responsible for completing the record
- Notice ongoing problems – with regular checks, you might start to notice the same problems coming up and can address the root cause of the problem and prevent it from happening again
- Notice trends and early warning signs – by having regular checks and then verifying the checks, you may notice trends that you would have missed otherwise. For example, you may notice cutting corners on Friday afternoons before a long weekend.

This all leads to continuous improvement of, not only your GMP program but also of your operation as a whole.

Often the most difficult part of maintaining a GMP program is maintaining the energy and momentum that you had while developing your program. Employees from the top to the bottom will have to fight complacency. Here are some ideas for making sure GMPs remain a priority:

- Include GMPs on the agenda during regular meetings
- Include GMPs as part of performance reviews
- Set GMP goals for the entire facility to meet

To ensure your program is running as it should, it's a good idea to have an evaluation of the entire program after having it up and running for a while. This evaluation is often called an internal audit. Internal audits should be conducted at least once per year. You don't have to complete the entire internal audit all at once, you can spread it out over the entire year, doing a section every month for example. To learn more about conducting internal audits see Book 5 *Preparing for an Audit*.

Advantage GMP Audit/Certification

Once you have your GMPs up and running you can choose to apply for certification of your *Advantage GMP* program. First, you will submit an application to the certifiying body and send your written programs for review. Once your written programs have been found to be complete, an audit will be scheduled. An auditor, from the certifying body not OMAFRA, will visit your facility and will review your GMP program to make sure it meets the requirements of the *Advantage GMP*. Once you pass the audit, you will receive an *Advantage GMP* certificate and will be listed on OMAFRA's website as a certified facility. You will also get the rights to use the *Advantage GMP* logo so your commitment to food safety can be easily identified. For more information on the audit process, see Book 5 *Preparing for an Audit*.

Resources

To sum up, your GMPs are a large undertaking that will require that you write many procedures and policies for all areas of your facility and perform a lot of training and verifying over time. GMPs will require the involvement of personnel from all areas and levels of the facility and require a solid commitment from management. What will result from all of this hard work is a program that prevents or catches problems before they become a major incident, with some great side effects like increased efficiency, decreased waste and improvements to employee relations. Ultimately the success of your program and the safety of your product depend on you. So, good luck to you as you embark on your GMP journey and remember to use the resources offered by OMAFRA!

Many resources have been developed to help you when creating your GMPs and most of them are available free of charge.

- OMAFRA staff – available to advise you in the adoption of your GMPs
  Phone: 1-877-424-1300
  Email: advantage@ontario.ca
- *Advantage* Manuals – this is Book 2 in a five book series
- Good Manufacturing Practices Training DVD
- OMAFRA training events
- *Advantage GMP* Training Kit

To find out more or to order any of these resources, please contact OMAFRA at 1-877-424-1300.

Advantage GMP Training Kit

OMAFRA has developed an *Advantage GMP* Training Kit to help you train your employees on GMPs. The kit is made up of a Starter Package and seven modules that correspond to sections of the GMPs.

The Starter Package includes:

- Instructions for using the *Advantage GMP* Training Kit
- Definitions of terms mentioned in the kit
- Posters to use during training or to post as reminders

Each of the seven modules includes;

- Slides to present training material
- Trainer notes with suggested speaking notes and discussion points to assist trainers deliver training
- Participant workbook with exercises to enhance learning
- Workbook with suggested answers to the exercises for the Trainer's use

The *Advantage GMP* Training Kit is designed so that you can customize it to your facility. You should add details from your facility and incorporate other aids and props as you see fit. You'll see in the example training procedures in this book, that we have included using the *Advantage GMP* Training Kit. The *Advantage GMP* Training Kit is distributed on behalf of OMAFRA by the Alliance of Ontario Food Processors (AOFP).

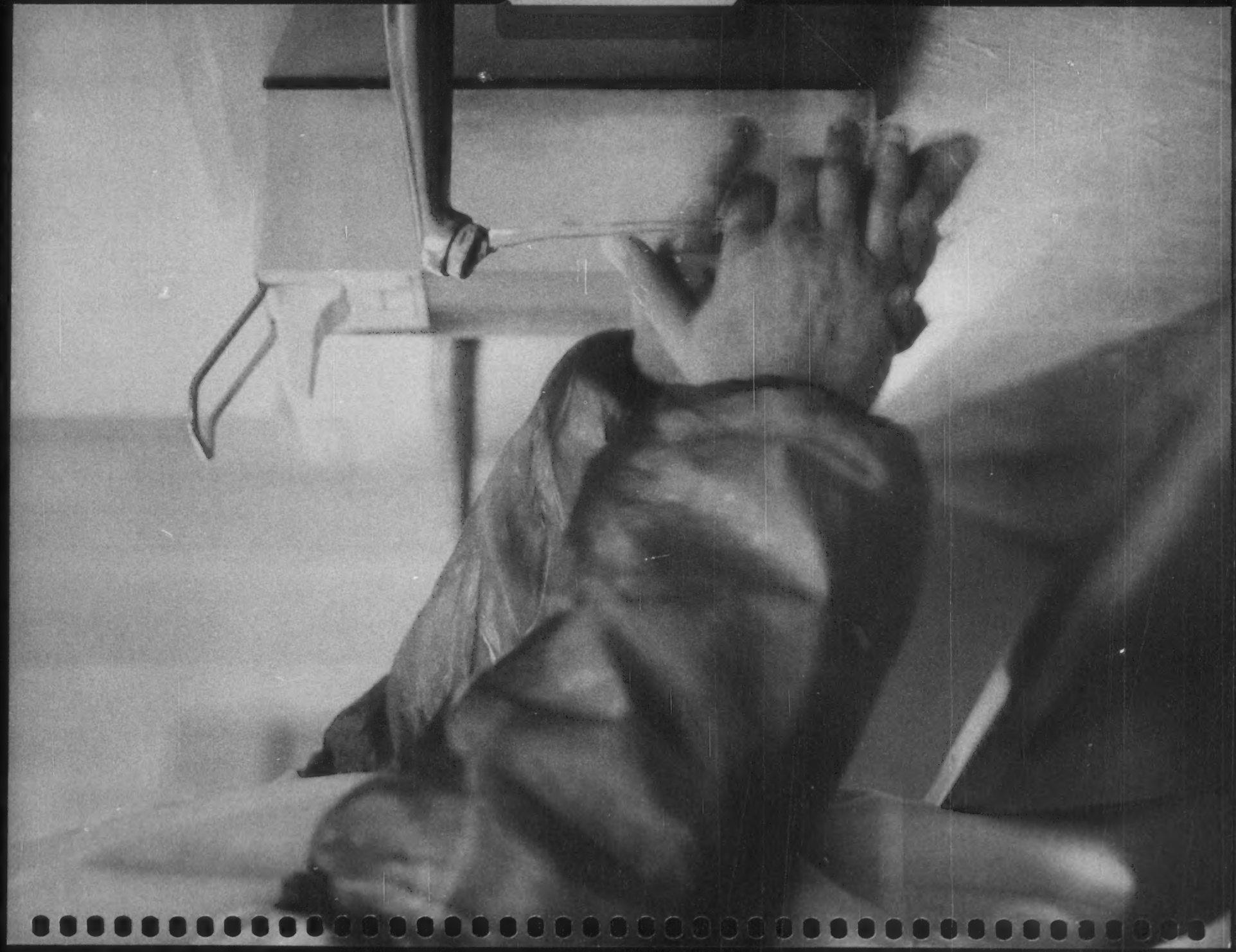
For more information on the *Advantage GMP* Training Kit, or to order a copy, contact AOFP at:

Phone: 519-896-5967
Website: *www.aofp.ca/FoodSafety*
Email: info@aofp.ca

Advantage GMP Standards

Summary Table

FOOD SAFETY MANAGEMENT SYSTEM (FSMS)			
DOCUMENT CONTROL			
PROGRAM			
1. PERSONNEL	P1.1 Personal Practices	T1 Personnel Training	V1 Personnel Verification
	P1.2 Hand Washing		
	P1.3 Utensils		
	P1.4 Injuries & Illness		
	P1.5 Access & Traffic Patterns		
2. RECEIVING & SHIPPING	P2.1 Receiving	T2 Receiving & Shipping Training	V2 Receiving & Shipping Verification
	P2.2 Shipping		
3. HANDLING	P3.1 Handling & Storage	T3 Handling Training	V3 Handling Verification
	P3.2 Control of Defective & Suspect Items		
	P3.3 Allergen Control		
	P3.4 Chemical Control		
	P3.5 Waste Management		
4. SANITATION	P4.1 Cleaning & Sanitizing	T4 Sanitation Training	V4 Sanitation Verification
	P4.2 Pre-Operational Inspection		
5. PREVENTATIVE MAINTENANCE & CALIBRATION	P5.1 Preventative Maintenance & Calibration	T5 Preventative Maintenance & Calibration Training	V5 Preventative Maintenance & Calibration Verification
6. PEST CONTROL	P6.1 Pest Control	T6 Pest Control Training	V6 Pest Control Verification
7. RECALL	P7.1 Product Labelling	T7 Recall Training	V7 Recall Verification
	P7.1 Recall		
8. WATER	P8.1 Water Treatment	T8 Water Training	V8 Water Verification
	P8.2 Water Testing		
	P8.3 Water Supply		
9. ENVIRONMENT	P9.1 Exterior	T9 Environment Training	V9 Environment Verification
	P9.2 Interior		
	P9.3 Personnel Facilities		
	P9.4 Equipment		
	P9.5 Temperature Control & Ventilation		
	P9.6 Sewage & Liquid Waste		
	P9.7 Glass & Brittle Material		
PROGRAM REVIEW			



Food Safety Management System (FSMS)

Why is it Important to Have a Food Safety Management System (FSMS)?

Advantage GMP is a voluntary food safety program that is above and beyond what is required by law and involves the efforts of the entire processing facility including top management. Therefore to have a truly effective GMP program you must also make sure that you are complying with all laws that apply to your operation and demonstrate the facility's management commitment.

You must comply with the Regulations and Acts from the municipal, provincial and federal government and even other countries' governments if you export your product.

A Food Safety Management System or FSMS requires that you have a procedure for making sure that you are aware of all food safety laws that apply to your operation and that you are in compliance with these laws.

Your procedure should follow the format of other GMP procedures (Who, When, What, Records, Deviations and Corrective Actions) and will include a list of all applicable food safety laws and at least an annual check of relevant government websites, and phone numbers.

For GMPs to be effective, everyone at the facility from top management down must be committed to food safety. Management sets the stage for the ongoing success of the GMP program. Without their commitment to GMPs, all personnel's commitment will inevitably fade. The FSMS requires that you have a policy stating management's ongoing commitment to GMPs.

During your *Advantage GMP* audit, the auditor will make sure that you have an effective FSMS in place at your plant.

Food Safety Management System (FSMS)

Food Safety Management System

A written FSMS policy is in use to ensure the facility meets all applicable food safety legal requirements (Acts and Regulations) and demonstrates management commitment to food safety.

A written FSMS procedure and corresponding records are in use for keeping current with changes to food safety legal requirements.

Suggestions to Meet the Standard

Make a list of all food safety regulations that apply to your facility and commodity, and ensure the requirements are being met (see next page for a list of applicable food safety regulations)

- You can access this information either by phone or website:
    - For Federal Acts and Regulations contact the Canadian Food Inspection Agency (CFIA):
        - Phone: 1-800-442-2342
        - Website: *www.inspection.gc.ca*
    - For Provincial Acts and Regulations contact the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA):
        - Phone: 1-877-424-1300
        - e-laws website: *www.e-laws.gov.on.ca*
- Include any municipal bylaws that apply to your facility
- Include corporate or third party food safety-related program requirements

Develop an FSMS policy (see Example 1). The policy should include:

- All food safety legal requirements the facility is obligated to meet
- Any corporate or third party food safety requirements
- A statement which demonstrates management commitment to the food safety program
    - This commitment statement should be written and signed by senior management, not the designated employee responsible to develop the FSMS policy. This way senior management will be fully aware of their role in the food safety system.

Develop an FSMS procedure that ensures your facility keeps up to date with the applicable food safety legal requirements (see Example 1).

Develop a record for the FSMS procedure and record any regulatory changes which affect your facility, ensure any documentation that is affected by the regulatory change is updated (see Example 2).

Note: Example 1 combines an FSMS Policy and FSMS Procedure

Food Safety Management System (FSMS)

Food Safety Legislation that Applies to Food Processors in Ontario

CAUTION: The information contained in the chart below is provided for informational purposes only. It is not authoritative and may be subject to change. In the event of a conflict, inconsistency, error or omission, take notice that the federal and provincial legislation applicable to food processors operating in Ontario will prevail. Please refer to *www.gazette.gc.ca* and *www.e-laws.gov.on.ca* respectively in this regard. Furthermore, the Government of Ontario assumes no liability for any conflict, inconsistency, error or omission, or for any actions taken in reliance upon this information.

	Act	Regulation
All Facilities	*Food and Drugs Act*	Food and Drug Regulations (C.R.C., c. 870)
	Health Protection and Promotion Act	O. Reg 562
	Consumer Packaging and Labelling Act	Consumer Packaging and Labelling Regulations (C.R.C., c. 417)
	Safe Drinking Water Act (Ontario)	O. Reg 169/03 Ontario Drinking Water Quality Standards
		O. Reg 170/03 Drinking Water Systems
	Health Canada's Guidelines for Drinking Water Quality	
	Canada Agricultural Products Act	Licensing and Arbitration Regulations (SOR/84-432)
Meat & Poultry	*Meat Inspection Act* (Canada)	Meat Inspection Regulations, 1990 (SOR/90-288)
	Food Safety and Quality Act, 2001 (Ontario)	O. Reg. 31/05 Meat
	Food Safety and Quality Act, 2001 (Ontario)	Livestock and Poultry Grades and Sales Regulation O. Reg. 266/09
	Canada Agricultural Products Act (Canada)	Livestock and Poultry Carcass Grading Regulations (SOR/92-541)
	Beef Cattle Marketing Act	Weighing of Carcasses Regulation (R.R.O. 1990, Reg. 55)
	Health Protection and Promotion Act	O. Reg. 318/08 Transitional – Small Drinking Water Systems
	Health Protection and Promotion Act	O. Reg. 319/08 Small Drinking Water Systems
	Farm Products Grades and Sales Act	Grades – Hog Carcasses R.R.O. 1990, REGULATION 379
	Weights and Measures Act	Weights and Measures Regulations (C.R.C., c. 1605)
Fish	*Ontario Fish Inspection Act*	O. Reg. 456
	Fish and Wildlife Conservation Act (Ontario)	O. Reg. 664/98 (Fish Licensing)
	Fisheries Act (Canada)	Ontario Fishery Regulations, 2007
	Fish Inspection Act (Canada)	Fish Inspection Regulations (C.R.C., c. 802)
Dairy	*Milk Act* (Ontario)	O. Reg 761
	Canada Agricultural Products Act	Dairy Products Regulations (SOR/79-840)
Organic	*Canada Agricultural Products Act*	Organic Products Regulations (SOR/2006-338)
Other	*Canada Agricultural Products Act* (Canada)	Egg Regulations (C.R.C., c. 284)
		Fresh Fruit and Vegetable Regulations (C.R.C., c. 285)
		Honey Regulations (C.R.C., c. 287)
		Maple Products Regulations (C.R.C., c. 289)
		Processed Egg Regulations (C.R.C., c. 290)
		Processed Products Regulations (C.R.C., c. 291)

EXAMPLE 1

FSMS Policy & Procedure (combined)

XYZ Food Facility	Food Safety Management System	
	Written By: M. Elliott	Code: SOP FSMS

Policy

"XYZ Food Facility", is committed and accountable to meeting all applicable food safety regulations to which it is mandated by the federal and provincial government. When it is determined that "XYZ Food Facility" fails to meet any of the required regulatory components, immediate actions will be taken to regain compliance with the regulation in question. Currently, "XYZ Food Facility" is mandated to comply with:

The *Health Protection and Promotion Act* (Ontario) O.Reg.562
The *Food and Drugs Act* (Canada)
The *Consumer Packaging and Labelling Act* and Regulations
***Safe Drinking Water* Act (Ontario)**

As the Management team at "XYZ Food Facility", we understand the importance of an effective f ood safety system and our role as managers in the successful adoption of the *Advantage GMP* program. We are aware of the requirements of such a program and are committed to providing on-going support to our GMP team to reap its many benefits.

Bill Smith (Owner): *Bill Smith* Carol Smith (Owner): *Carol Smith*

Procedure

Who: Food Safety Coordinator or designated trained personnel

When: Annually, or when changes occur

What:

1. Contact local regulatory jurisdictions by telephone or by visiting the appropriate website (see contacts below), to check for any changes in regulatory requirements
2. After compiling all regulatory changes, verify that "XYZ Food Facility" is complying with all current, applicable regulations
3. Record all findings on the RCD FSMS; FSMS - Regulatory Requirements, Changes, Additions

Contacts:

OMAFRA
Phone: 1-888-466-2372
Website: *www.ontario.ca*

CFIA
Phone: 1-800-442-2342
Website: *www.inspection.gc.ca*

CFIA assigned contact person: "Jane Smith", Food Specialist
Phone: 519-XXX-XXXX

Health Department
Phone: 519-XXX-XXXX
Website: *www.wdghu.org*

Deviations: Failure to meet any of the required regulatory components

Corrective Actions: Notify management immediately, Management will take immediate action to bring the facility into compliance with all required regulations and will perform a Food Safety Assessment to determine if food safety has been compromised. Include any changes made to the GMP program in the logbook, RCD DC2

Records

RCD FSMS, FSMS – Regulatory, Requirements, Changes, Additions

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EXAMPLE 2
FSMS Record

XYZ Food Facility	FSMS – Regulatory Requirements, Changes, Additions	
	Written By: M. Elliott	Code: RCD FSMS

Record

Date	Regulatory Requirements – Check Complete, Changes, Additions Deviations and Corrective Actions (record all findings)	Logbook Updated (if changes made)	Initials
July 10/08	Annual check, complete, no findings	N/A	JK
July 21/08	Food and Drugs Act - Food and Drug Regulations (Canada) - notified by email of changes to labeling requirements for allergens. Labels checked, not in compliance. Labels changed and Recall program updated to reflect new labels. Complete Nov. 23/08	Yes	JK

Document Control

Why is it Important to Have a Document Control Program?

The *Advantage GMP* program will result in documentation in the form of procedures, policies, records, checklists, schedules and lists. Your entire food safety program depends on this documentation because it is the evidence that your written procedures have been put into practise and your program is effectively implemented.

Overtime, as you continually review and update your program you will have out-of-date procedures and records. You must have a system in place at your facility to make sure that only current versions of all documents are being used. Your document control system must include all your paper and electronic documents.

For example, an update is made to your sanitation pre-operational inspection (P4.2) checklist to include a new piece of equipment. However, because the Sanitation Supervisor printed many copies of the checklist and keeps them at his desk, he continues to use the old checklist that does not list the new piece of equipment. You will then have no record that the new piece of equipment was ever checked during the pre-op inspection or worse yet, it will not be checked. A document control system will prevent this from happening.

There are many ways to control your documents and you must determine the system that best suits your operation. One or two people should be assigned the responsibility of managing the documents. These should be the same people that will have access to change and update documents. Documents may be password protected to limit access and should also have a revision # to help keep track of which is the latest version.

You must also keep a logbook to track any changes made to your GMP program. The logbook should include what was changed, who made the change, the reason for the change, the date the change was made, the revision #, who approved the change and should ensure that employees who will be affected by the change were retrained.

Document Control

Document Control

This standard applies to the GMP, HACCP and HACCP Plus programs.

A written document control procedure is in use to ensure only the current version of all documentation is being used.

A logbook is in use and updated when changes are made to the food safety program.

A written policy for record retention is in use.

Suggestions to Meet the Standard

Develop a procedure for the facility describing the specific document control program (see Example 1)

- The procedure should ensure that inactive and old, obsolete documents are disposed of and replaced with current versions
- All documents should have a title and a document identification number or code and a revision date or number
- It might be helpful to include the name and number of the associated Advantage GMP standard in the document name and/or code. It is up to the facility what system is chosen as long as it is clear what documentation is associated with each Advantage standard.
    - In the examples included in this book we have called policies and procedures, standard operating procedures or SOPs to keep the document codes simple
    - In the examples included in this book we have called lists, schedules and diagrams; records to keep the document codes simple
- Depending on the complexity of your GMP program and facility, you may also want to include the name of the document creator, the reviser, the approver and the date approved

Create a list of all documents including all policies, procedures, their corresponding records and any lists, schedules or diagrams (see Example 2)

Create a logbook to track GMP related program changes explaining what was changed, the reason for the change, who made the change, the date the change was made, who approved the change and revision numbers (see Example 3)

- Examples of what to track in the logbook include:
    - Changes to an activity/monitoring or verification frequency
    - Change of an employee responsible for an activity/monitoring or verification procedure
    - Changes to methods within the procedure
- It is not necessary to track administrative changes such as, typos, page numbers and font
- Logbook entries should be made at the time the change is made and should not be delayed

Document Control

Suggestions to Meet the Standard

Develop a record retention policy.

- The rule of thumb is to keep completed records for the length of your product's shelf life or two years, whichever is longer
- Include the storage location for completed records and who is responsible
- This can in included in your document control procedure

After adopting *Advantage GMPs*, if you also adopt *Advantage HACCP* and/or *Advantage HACCP Plus*, remember to include all associated documents in your Document Control program.

EXAMPLE 1
Document Control Procedure

XYZ Food Facility	Document Control Procedure	
	Written By: A. Jones	Code: SOP DC

Who:	**When:**
Food Safety Coordinator	When creating a new document or making a change to the food safety program

What:

Master List of Food Safety Program Documents

Maintain a Master List of food safety program documents. The Master List will contain the following information:
- Document title
- Document code
- Creation/Revision date
- Author's name
- Location of the document

Ensure all food safety documents contain, the following information:
- Document title
- Document code
- Creation/Revision
- Author's name
- Page number in format "1 of #"

Document Development Process

Only the Food Safety Coordinator may create or revise documents.
When creating a new document or revising an existing document the Food Safety Coordinator will assign a document title, code and creation or revision date. The Food Safety Coordinator must approve all new and revised documents and ensure the document is added to the training schedule, logbook and any other relevant documents (e.g. Document Master List, Sanitation Master list). The Food Safety Coordinator will have the relevant area Supervisor review the document before approval.

The Food Safety Coordinator will ensure that at least one (1) copy of each controlled document that is issued for use is stored (archived) for reference. The Food Safety Coordinator will notify all relevant personnel of the change, distribute new documents and collect and destroy all out-dated documents.

Document Identification

Each type of document will be given a code:
- The code will consist of letters and a three-digit set of numbers. The numbers start with the Advantage numbering system, then increase sequentially, for example the Cleaning and Sanitizing Procedure will be "P4.1.1", if there is another procedure that relates to that standard it will be "P4.1.2" and so on.
- Procedures and records will be differentiated by, "SOP" for "standard operating procedure" in front of the code for procedures and "RCD" for "record" in front of the code for records, lists, schedules, etc.
  - e.g. for cleaning and sanitizing:
    - **SOP** P4.1.1 Cleaning & Sanitizing **Procedure:** Floors, Walls and Ceilings
    - **RCD** P4.1.1 Cleaning & Sanitizing **Record:** Floors, Walls and Ceilings

Revision Identification

Each document is identified by a creation, revision or obsolete date in the format "Jan 1, 08" in the footer of the document.
- For new documents it will say "creation date" followed by the date
- For revised documents it will say "revision date" followed by the date

Keep completed records for two years in the front office storage room.

Deviations:	**Corrective Actions:**	**Records:**
Obsolete document found being used	Immediately remove document and all copies from circulation	RCD DC1 Master List of Food Safety Documents RCD DC2 Document Control Logbook

Creation Date: Feb. 3, 2008	Page: 1 of 1

EXAMPLE 2
Master Document List

XYZ Food Facility	Master List of GMP Documents	
	Written By: A. Jones	Code: RCD DC1

Policies and Procedures Records	Author	Revision Date	Location
Food Safety Management System (FSMS)			
SOP FSMS Food Safety Management System	M.ElM. Elliott	Jan.10/08	F.S. F.S Coordinator Office
RCD FSMS Record – Regulatory Requirements, Changes, Additions	M.ElM. Elliott	Jan. 10/08	F.S. F.S. Coordinator Office
Document Control			
SOP DC Document Control Procedure	A.JoA. Jones	Feb.3/08	F.S. F.S. Coordinator Office
RCD DC1 Master List of GMP Documents	A.A. A. Jones	Feb.3/08	F.S. F.S. Coordinator Office
RCD DC2 Document Control Logbook	A.A.A. Jones	Jan.10/08	F.S. F.S. Coordinator Office
Personnel Practices			
SOP P1 Personnel Policies	B. Alexis	Jan.24/09	Production Office
SOP P1.2.1 Hand Washing Policy	S. Harris	Jan.24/09	Production Office
SOP T1 Personnel Training Procedure	B. Ashely	Jan.24/09	Production Office
SOP V1 Personnel Verification Procedure	K. Marshall	Jan.1/09	Production Office
RCD P1.5.1 Facility Schematic	S. Harris	Jan.24/09	Production Office
RCD P1.5.2 Visitor Log	S. Harris	Jan.24/09	Production Office
RCD T1 Personnel Training Record	S. Susa	Jan.24/09	Production Office
RCD T1.2 Personnel Training Assessment	S. Susa	Jan.1/09	Production Office
RCD T1.1.3 Training Schedule	A. Christine	Jan.1/09	Production Office
RCD V1 Personnel Verification Record	F. Blare	Dec.10/09	Production Office
Receiving & Shipping			
SOP P2.1.1 Receiving Procedure – Food, Ingredients & Packaging Materials	A. Smith	Nov.12/08	Shipping Office
SOP P2.1.2 Receiving Procedure – Chemicals	A. Smith	Nov.12/08	Shipping Office
SOP P2.1.3 Approving Suppliers Procedure	A. Smith	Nov.12/08	Shipping Office
SOP P2.2.1 Shipping Procedure	A. Smith	Nov.12/08	Shipping Office
SOP T2 Receiving and Shipping Training Procedure	A. Smith	Nov.12/08	Shipping Office
SOP V2 Receiving & Shipping Verification Procedure	A. Smith	Nov.12/08	Shipping Office
RCD P2.1.1 Receiving Record	A. Smith	Nov.12/08	Shipping Office
RCD P2.1.3 Approved Supplier List	A. Smith	Nov.12/08	Shipping Office
RCD P2.2.1 Shipping Record	A. Smith	Nov.12/08	Shipping Office
RCD T2.1 Receiving and Shipping Training Record	H. White	Apr.10/08	Shipping Office
RCD T2.2 Receiving and Shipping Training Assessment	A. Smith	Apr.10/08	Shipping Office
RCD V2 Receiving and Shipping Verification Record	M. Hassle	Apr.10/08	Shipping Office
Handling			
SOP P3.1.1 Handling & Storage Policy	A. Smith	Nov.12/08	Production Office
SOP P3.2.1 Defective and Suspect Items Procedure	A. Smith	Nov.12/08	Production Office
SOP P3.2.2 Food Safety Assessment Procedure	F. Peabody	Nov.12/08	Production Office
SOP P3.4.1 Chemical Control Policy	A. Smith	Nov.12/08	Production Office
SOP P3.5.1 Waste Management Procedure	J. Orback	Sep.27/08	Production Office
SOP P3.1.1 Finished Product Inventory Record	F. Carlisle	Nov.12/08	Production Office
SOP T3 Handling Training Procedure	A. Smith	Mar.31/08	Production Office
SOP V3 Handling Verification Procedure	B. Love	Mar.31/08	Production Office
RCD P3.2.1 Defective and Suspect Items Record	A. Smith	Nov.12/08	Production Office
RCD P3.5.1 Garbage and Inedible Record	B. Parson	Oct.2/08	Production Office
RCD T3.1 Handling Training Record	A. Smith	Mar.31.08	Production Office
RCD T3.2 Handling Training Assessment	A. Smith	Mar.31/08	Production Office
RCD V3 Handling Verification Record	A. Smith	Mar.31/08	Production Office
Sanitation			
SOP P4.1.1 Cleaning & Sanitizing – Floors Walls & Ceilings	K. Abdulla	Jan.17/09	Production Office
continued.....			

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EXAMPLE 3

Document Control Logbook

XYZ Food Facility	Document Control Log Book	
	Written By: A. Jones	Code: RCD DC2

Date	Change made by	Change Made to (Document Code & Title)	Description of the Change Reason for the Change	Revision Date	Approved by	Approval Date	Associated Documents Updated? (yes/no)	Appropriate Personnel Trained? (yes/no)
Mar. 7/09	I. Culverwell	RCD P6.1.1 Pest Control RecordRCD P6.1.2 Pest Control Facility Schematic	Added 2 extra traps in Shipping area because there have pest sightings in this areaUpdated the pest control documents to include the new traps	Mar. 7/09	John Yates (Food Safety Coordinator)	Mar. 6/09	yes	yes

Revision Date: Jan 10, 2008	Page: 1 of 1

Personnel

Why is it Important to Have a Personnel Program?

Facility personnel, visitors and contractors are a common source of biological, chemical or physical contamination of food, ingredients, packaging materials, processing aids and food contact surfaces, therefore they play a major role in the production of safe food.

The potential for contamination by microorganisms and physical contaminants is greatly increased if activities such as eating, drinking, chewing gum or tobacco, wearing jewelry, spitting or working while sick are practiced in food handling areas. Hazards in food products can lead to consumer complaints, injuries, illness or death. Personnel who do not maintain an appropriate degree of personal cleanliness can contaminate food.

Cross-contamination with micro-organisms or allergens is commonly due to direct or indirect transfer from people to food, ingredients, packaging materials, processing aids or food contact surfaces. Cross-contamination can occur from unhygienic clothing or footwear (e.g. soiled clothing) and improperly stored and handled clothing, utensils and equipment (e.g. soiled clothing left on food contact surfaces, use of contaminated utensils).

Personnel can be a source of cross-contamination if their movement (e.g. designated traffic patterns are not followed) and access to the establishment are not controlled (e.g. personnel handling raw products entering ready-to-eat product areas).

Proper and frequent hand washing helps to reduce the potential for bacterial contamination. Since allergens can also be carried on the hands of food handlers, proper hand-washing procedures must be followed after handling products containing allergens.

Open cuts and wounds that are not appropriately bandaged and covered can be a source of biological contaminants (e.g. Staphylococcus aureus). Personnel suffering from diseases transmissible through food (e.g. Salmonella, Hepatitis A) can contaminate food, ingredients, packaging materials, processing aids and food contact surfaces and ultimately infect the consumer.

A written Personnel Practices program should include policies that will reduce potential hazards and minimize contamination risks. These written policies should be posted in an obvious, visible place such as a notice board, above sinks and in washrooms.

P1 Personnel

Personnel Practices P1.1

Written personal practices policies are in use by all personnel, including visitors and contractors in. The policies include:

- Personnel maintain an appropriate degree of personal hygiene and cleanliness
- Personnel do not eat, drink, smoke, chew gum or tobacco, spit, use medication or perform any other potentially unhygienic activities in food handling and storage areas
- Personnel do not wear fingernail polish, false eyelashes or fingernails, badges, pins, etc. that may cause contamination
- Objects, such as jewelry and watches are removed, except medic alert bracelets/necklaces
- Personnel do not bring glass or brittle materials into food handling and storage areas
- Personnel wear suitable clothing, footwear and headwear
- Personnel clothing, footwear, headwear and gloves are clean, in good repair and properly stored in designated areas
- Measures to prevent clothing, footwear and headwear from becoming a source of contamination

Suggestions to Meet the Standard

Develop a personal practices policy which includes the following: (see Example 1)

- Personal hygiene and cleanliness; including good personal grooming habits (e.g. clean and trimmed fingernails).
- Coughs and sneezes should be directed into the elbow.
- Eating food, drinking beverages and using tobacco products should be restricted to designated areas only. Define any exceptions to the policies, for example use of water fountains in the work area.
- Personal food (e.g. lunches) should be stored in a designated lunch room, not in the change room
- Use and storage of personal medication to minimize the risk of contamination. Indicate where medication is to be stored and consumed.
- Watches, necklaces, chains, bracelets, earring, rings and exposed piercings should not be worn. If not prohibited by your facility policy and/or safety requirements the policy should define any exceptions to jewelry control. For example Medic Alert bracelets /necklaces are acceptable, if they are properly secured and covered. Medic Alert necklaces are preferred over bracelets.
- Glass and brittle material (except packaging for the product being produced) should not be brought into the food processing area. This policy should define any exceptions, for example if eyeglasses (e.g. bifocals/reading glasses) are not being worn they should be stored in a designated area. See P9.7 Glass & Brittle Material for more information.
- Personnel clothing (e.g. coats, smocks, aprons, gloves), footwear and headwear (e.g. hair nets, helmets, face coverings):
    - Personnel clothing usually covers and contains all street clothing which may contaminate food. Protective clothing should be of a design that prevents contamination, is durable and cleanable or single-use.

P1 Personnel

Suggestions to Meet the Standard

- Personnel clothing, footwear and headwear should be kept clean and kept in good repair (no holes, rips, loose treads, etc.). If footbath sanitizing stations are used to sanitize footwear, in your policy, include when they should be used.
- Clothing should be light coloured to show soil easily, have no external pockets above the waist and no sewn on buttons. If clothing becomes soiled have clean clothing available. Personnel clothing must be laundered.
- Items such as pens, stopwatches and thermometers should be carried in pockets or pouches below the waist in production areas.
- If gloves are used, they should be suitable for food use. Where possible, use a distinctive colour (e.g. blue).
  - Gloves should be intact, not shed loose fibres, and be replaced regularly (e.g. upon re-entry into the processing area; when soiled or damaged)
  - When wearing gloves maintain proper hand washing practices (see P1.2 Hand Washing for more information).
- Include head, beard or moustache covers. Personnel should wear hair restraints to fully contain hair. Define any exceptions to the policy.
- In incompatible processing areas it may be beneficial to have distinctive colour-coded clothing based on food safety risk (e.g. incompatible processing areas – raw or cooked; allergen preparation)
  - Distinctive clothing may include outer garments, headwear or footwear. Indicate if this clothing should be applied when entering and removed when leaving the incompatible area and where to properly store the item.
- Protective clothing, footwear and headwear should be stored in designated areas, separately from street clothing and other personal items. Designated storage areas include lockers, racks, hooks, etc.
- Personnel clothing designated for food handling and storage areas should be removed before entering washrooms, lunchroom, outside, smoking areas, etc.
- Personnel should keep their individual work areas tidy and free from clutter
- Visitors and contractors should follow all personnel policies set by the company (e.g. wearing company uniform, hairnet, gloves, hand washing, illness and traffic patterns)
  - It's helpful to have a separate policy for visitors and contractors
  - Upon entering the facility, visitors and contractors should read all personnel policies that pertain to them and sign off that they fully understand them (see Example 6)
  - Visitors should have a designated facility escort with them at all times who should also sign the visitor log to confirm they are responsible for the visitor

- Depending on the product you produce (e.g. nut free product) it may be beneficial to have a policy which prohibits bringing nuts or products containing nuts into the facility (e.g. in employee lunches, vending machines, etc.), due to the potential for cross-contamination

P1 Personnel

Hand Washing P1.2

Written hand washing policies are in use by all personnel, including visitors and contractors. The policies ensure:

- Personnel wash their hands whenever entering food processing and handling areas, following breaks or use of personnel facilities and following any actions that may contaminate their hands
- Hand washing is performed properly with a constant flow of warm potable water, soap from a dispenser, and sanitary hand drying

Suggestions to Meet the Standard

Develop a hand washing policy which should include instructions for when and how to wash hands (see Example 1)

- When – Personnel wash hands following any action that may contaminate hands:
  - Whenever entering food processing and handling areas, following breaks or use of personnel facilities (e.g. lunch room, toilet facilities and change room)
  - Prior to handling food, ingredients, processing aids, packaging materials or food contact surfaces
  - Prior to putting on gloves
  - Between handling different allergens
  - After sneezing or coughing
  - After tying shoes
  - After smoking
  - After touching hair, face or the floor
  - After handling dirty or contaminated material or equipment (e.g. garbage bins, handle of lift trucks)
  - After using the toilet
  - Or any other times hands may become contaminated
- How – Steps for proper hand washing include:
  1. Remove jewelry prior to entering food handling/processing areas
  2. Wet hands and forearms with warm water
  3. Use soap
  4. Lather vigorously for 20 seconds
  5. Rinse
  6. Dry
  7. Keep hands clean (where hands-free faucets are not available, turn off the tap and open door with paper towel)
  8. Throw away paper towel
- The lid of the waste container should be designed so that you do not need to touch the lid to throw away paper towel

P1 Personnel

Suggestions to Meet the Standard

Post signs instructing people to wash their hands above hand wash stations and entry ways into product handling areas (see Example 2 and P9.3 Personnel Facilities)

If hand sanitizing stations or dips are used to sanitize hands and gloves, include in your policy how and when to use them

- Hand sanitizer does not replace proper hand washing, it is used following proper hand washing.

If gloves are used, hand washing is still very important, personnel should wash hands prior to putting on the gloves and maintain proper hand washing procedures throughout the production day.

P1 Personnel

Utensils P1.3

Written policies for proper storage and handling of utensils to prevent cross-contamination are in use by all personnel, including contractors.

Utensils are any mobile utensil or piece of equipment that personnel can move around and potentially cause cross-contamination, e.g. ingredient scoops, chemical scoops, pails, garbage containers, knives, spatulas, cleaning brushes, brooms, dust pans, squeegees, ingredient containers, shovels, carts, bins, totes, scales, maintenance tools, lift trucks, portable metal detectors, pumps, foamers, etc.

Suggestions to Meet the Standard

Cross-contamination is the physical movement or transfer of harmful micro-organisms, allergens, chemical contaminants or any foreign substance from one person, object or food product to another. For example, if the same utensil is used for allergen and non-allergen ingredients, non-allergen products may be cross-contaminated with allergens.

Develop a policy for utensils so they are properly handled and not taken into incompatible areas of the facility where they have the potential to cause cross-contamination (e.g. raw or cooked areas; lunch room, personal storage areas; outside the facility; allergen preparation areas) (see Example 1)

- Utensils should be clearly marked (e.g. colour coded or labeled) as to their specific use and area of use. For example, colour coding broom handles (e.g. red handle broom in raw area and blue handle in cooked area) helps identifies raw product utensils versus cooked product utensils.
- For facilities handling allergens include methods to control and prevent cross-contamination. For example, assign separate utensils, scoops, ingredient containers (e.g. colour, label, signs) for each allergen (see P3.3 Allergen Control for more information).
- Maintenance tools may also be colour coded or labeled
- Post signs or pictures in the facility, of utensils showing proper storage and handling (see Example 3)
- Utensils should not be set down where they have the potential to fall into product and should not be placed on the floor, or against any surface that could be a source of cross-contamination
- Snap-off blades should not be used in a food processing facility as they have the potential to physically contaminate the product
- Maintenance personnel should not place their tools, parts, etc. on or near food contact surfaces

Develop a policy for storing utensils in designated areas that will not lead to cross- contamination (see Example 1)

- Provide designated storage for utensils (e.g. cabinets, labeled racks, shelves or hooks). They should be stored in a sanitary environment where they will not become contaminated by processing or cleaning activities before their next use.
- Clean utensils should not be stored with dirty utensils

P1 Personnel

Injuries & Illness P1.1

Written injury and illness policies are in use by all personnel, including visitors and contractors, to prevent or minimize the contamination of food, ingredients, processing aids, packaging materials and food contact surfaces. The policies include:

- Personnel who have open cuts do not handle exposed food, ingredients, processing aids, packaging materials or food contact surfaces unless measures are taken to prevent direct or indirect contamination of food
- Personnel who are suffering from, show symptoms of, or are known to be carriers of an illness transmissible through food; report to management immediately
- Personnel who have illness transmissible through food do not handle or work near food, ingredients, processing aids, packaging materials or food contact surfaces

Suggestions to Meet the Standard

Develop a policy for personnel to report all injuries sustained in the workplace to the designated person for appropriate first aid and application of protective bandages (see Example 1). Injuries sustained outside the workplace should also be reported so appropriate protective bandage can be applied.

- All cuts and grazes on exposed skin should be covered by a company issued waterproof bandage that is a different colour than the product (e.g. bright blue). It is wise to provide a detectable metal strip bandage when metal detection is in use.
- In addition to bandages, injuries on hands should also be covered with company issued gloves
- All waterproof bandages should be changed at a frequency that allows for continual protection e.g. covering remains effective

Develop a policy to follow if food, ingredients, processing aids, packaging material or food contact surfaces are contaminated from an illness or injury during work (e.g. vomiting, saliva, blood). The instructions should include:

- Stopping the production line if food, ingredients, processing aids, packaging materials and food contacts surfaces may be affected
- Conducting a Food Safety Assessment
- Cleaning and sanitizing of the area and all food contact surfaces
- Who is responsible for documenting the incident (e.g. injury incident record)

Develop a policy for employees who are ill or personnel suffering from, show symptoms of, or are known to be carriers of an illness transmissible through food (see Example 1)

- Personnel should report symptoms of illnesses transmissible through food to their supervisor before beginning their workday. Because that may not always happen, supervisors should familiarize themselves with the symptoms of infectious diseases so those showing these symptoms can be excluded from food handling areas. Frequent trips to the washroom may be the most obvious indication of illness.

P1 Personnel

Suggestions to Meet the Standard

- A wide range of transmissible illnesses (e.g. *Shigella* and *Salmonella* bacteria, Hepatitis A virus and noroviruses) may be transmitted from infected food handlers to consumers through food. For example, unwashed hands of infected food handlers can introduce Salmonella bacteria, to food. Those infected with a transmissible illness often begin to spread pathogens to their environment before they show symptoms. They continue to spread pathogens while they are ill and for a period of time after they appear to have recovered. For this reason, food handlers showing symptoms of an active case of an infectious illness or diarrhea must be excluded from duties that involve direct or indirect contact with food, ingredients, processing aids, packaging materials or food contact surfaces.
- Symptoms of transmissible illnesses include: jaundice, diarrhea, vomiting, fever, sore throat with fever, visibly infected skin lesions (e.g. boils, cuts) and discharges from the ear, eye or nose
- Personnel experiencing coughing and sneezing should not directly handle or work around food, ingredients, processing aids, packaging material or food contact surfaces. They should report their condition to the designated person so that alternate arrangements of work duties can be made.
- New employees should confirm in writing that they are free from transmissible illnesses that could negatively impact food safety. It is recommended that visitors and contractors also confirm they are free from transmissible diseases.
- If an employee is diagnosed with a transmissible disease you may require a doctor's note before permitting them to return to work

P1 Personnel

Access & Traffic Patterns P1.5

Written policies are in use in the facility to control access and movement of personnel, including visitors and contractors, to prevent or minimize contamination of food, ingredients, processing aids, packaging materials and food contact surfaces. The policies include:

- Designated traffic patterns for personnel to follow
- Access to the facility is controlled and limited to authorized personnel only

Suggestions to Meet the Standard

Develop a policy for designated traffic patterns (movement of personnel) for personnel to reduce the potential for cross-contamination (e.g. personnel handling raw products do not enter ready-to-eat product areas) (see Example 1)

- Personnel should be restricted to the immediate area of their workstations. Access to their workstations should be as direct as possible, avoiding travel through other processing areas. For example, personnel working in raw areas should not travel through cooked areas to get to their working stations. If their work requires them to circulate around the facility, they should change clothing, wash their hands and sanitize the bottom of their footwear in boot washes or floor foamer stations.
- Personnel that travel from one processing area to another are potential sources of contamination. Areas of contamination can be identified by developing a facility schematic of the facility which indicates traffic flow of personnel (see Example 4).
- Designated traffic patterns can be identified using markings on the floor, signs, physical partitions or the plant schematic
- Truck drivers should be restricted to the receiving and shipping area
- If your facility handles allergens, allergen control policies should be developed to control personnel traffic patterns to ensure allergens are not tracked accidentally into areas where non-allergen products and ingredients are handled, processed or stored
- Use signage to indicate access. Colour coded uniforms or markings on uniforms (coloured collar, sticker on helmet, etc.) are helpful to identify employees/visitors/contractors who may be in the wrong processing area (e.g. personnel handling raw products do not enter ready-to-eat product areas).
- Visitors and contractors should follow the designated traffic patterns
- See P9.2 Interior for more information on physical and operational control of cross-contamination

P1 Personnel

Suggestions to Meet the Standard

Develop policies for access to the facility so access is controlled and limited to authorized personnel to prevent or minimize entry of unauthorized individuals (see Example 1)

- Personnel and visitors (e.g. contractors, pest control operators, auditors, drivers, etc.) are potential sources of contamination in the facility
- To minimize the risk of accidental or deliberate contamination of food, ingredients, processing aids, packaging materials and food contact surfaces, entry into the facility should be controlled during both working and non-working hours
- The policy should include where employees, visitors, contractors, pest control operators, and drivers are permitted to enter the facility. The plant schematic should include access points of personnel. Post signs at points of entry where applicable.
- Personnel should enter/exit the facility through the designated entrance points
- All visitors should sign in/out, enter/exit the facility through the designated entrance points and should be accompanied while in the facility (see Example 5)

T1 Personnel

Personnel Training T1

Written procedures and corresponding records are in use for training on the personnel program. The procedures identify:

- Personnel who require training
- The trainer
- Training material used
- Frequency of training
- Assessment method to confirm the training is understood

Training is provided prior to starting all job duties, and whenever changes are made to the personnel program.

Refresher training is provided at minimum once per year.

Suggestions to Meet the Standard

Develop a training procedure (see Example 6)

- Include instructions to ensure all the appropriate personnel are present for training (e.g. cross-reference training list, training schedule and up-to-date employee lists)
- Materials that can be used to support training of the Personnel program include:
    - Polices developed in P1
    - OMAFRA's *Advantage GMP* Training Kit – Module 1: Personnel Practices
    - Hands on demonstration and practice, e.g. glowing lotion and ultraviolet light - demonstrates how effectively hands are washed
    - Videos/visual aids, e.g. OMAFRA's *Advantage GMP* Personnel Practices DVD video

Develop corresponding records for training material presented (see Example 7)

- Training records list who is in attendance, the date the training took place, the topic, the material used and the name and signature of the trainer
- The training records have space for employees to initial and sign to indicate they received the training

Develop a method to assess and prove employees who were trained understood the training material

- For example a written or verbal test or observe the task being performed (see Example 8)

T1 Personnel

Suggestions to Meet the Standard

Develop a training schedule. The training schedule should include the names of personnel that require the training.

- The training schedule is predetermined and indicates who needs to be trained and how often refresher training will occur
    - How often you have refresher training depends on your commodity, employee turnover rate and/or season of production e.g. once per year, once per season, or every six months
- It may be easier to have one schedule for all 9 training standards (see Example 9)

Remember to include deviations and corrective actions in training procedures (e.g. documenting employees absent from training and/or reassessing training materials if training is not effective)

All 9 GMP sections require training procedures and records be developed and used. You may consider combining training procedures and records for some or all 9 GMP sections. If training procedures are combined, be sure to include details from all sections in the combined procedure (e.g. materials used to train each section, detailed schedule).

V1 Personnel

Personnel Verification V1

Written procedures and corresponding records are in use for personnel verification, which confirms at pre-determined intervals, that personnel activities are being performed as written.

Suggestions to Meet the Standard

Develop verification procedures (see Example 10)

- To verify the personnel program, the most common method is to observe employees/visitors/ contractors and record whether the policies are followed or by interviewing the employee regarding the policies

Develop a verification schedule for verifying the personnel program based on the risk of the activity being performed

- Generally, personnel activities occur on an ongoing basis, a daily verification frequency should be considered
- If there is a high employee turnover rate in the facility, it might be necessary to increase the frequency of the verification to ensure that personnel are following the policies and procedures
- When verifying personnel activities you should consider the best time to do this. It should not be done at the same time each day. For example the best time to verify hand washing activities may be at the beginning of the shift or after lunches and breaks. Consider the best times to verify the cleanliness of uniform, traffic patterns etc. (e.g. in middle of shift).

Develop corresponding records for personnel verification procedures, remember to include deviations and corrective actions in all verification procedures and records (see Example 11)

EXAMPLE 1

Personnel Policies

(This example covers all P1 standards)

XYZ Food Facility	Personnel Policies P1 – P5	
	Written By: Brittany Alexis	Code: SOP P1

All personnel, including visitors and contractors, entering food handling and storage areas must follow "XYZ's Food Facility's" Personnel policies at all times to reduce potential food safety hazards and minimize contamination risks.

The following Personnel policies encompass all areas of the facility except the front office.

P1.1 Personal Practices

- Personnel must maintain an appropriate degree of personal hygiene and cleanliness, e.g. clean and trimmed fingernails
- No sneezing and coughing toward food, ingredients, processing aids, packaging materials or food contact surfaces. If sneezing and coughing are unavoidable, direct the sneeze or cough into the bend of your elbow and away from the product, wash hands and change smock and gloves.
- Personnel do not eat, drink beverages, smoke, chew gum or tobacco, spit, use medication in food handling or storage areas, or perform any other potentially unhygienic activities
- Medication is to be stored in personal lockers and consumed in the lunchroom
- Eating and drinking beverages is allowed only in the lunchroom and outside in the picnic table area. Smoking is allowed only in the picnic table area.
- Personnel must not wear fingernail polish, false eyelashes or fingernails, badges, pins, etc.
- All jewelry including watches, necklaces, chains, bracelets, earrings, exposed piercings, hair decorations and rings are to be removed. Medical alert jewelry is the only exception and must be secure and covered.
- Items such as pens, thermometers and stop watches are carried in pockets or pouches below the waist
  - Only pens without lids are permitted in the facility
- Personnel must not bring glass or brittle materials into food handling and storage areas. Eyeglasses (e.g. bifocals) that are not worn are to be stored in your locker.
- Protective clothing (coats, smocks, aprons, gloves, head covering, hardhats, face covering and footwear) must be worn to prevent contamination. Hair coverings must contain all hair. Beard nets are to be worn to cover beards and mustaches. Personnel with beards and/or moustaches that extend below the upper lip are to wear a beard net.
- Personnel are to change smocks when moving from raw to cooked areas and vice versa. Do not store protective clothing in lockers with personal clothing.
  - Raw area – blue smock
    – blue apron
  - Cooked area – white smock
    – white apron
  - Maintenance – green smock
- Smocks and aprons are to be clean and stored on the labeled hooks beside the cooked room entrance for white and beside the entrance to the raw area for blue
- Remove smocks and aprons and place on the labelled hook before entering washrooms, lunchroom, outside and smoking areas
- Each day wear clean protective clothing and if they become contaminated change into clean protective clothing. Do not wear clothing that is not in good repair, for example with loose threads, holes, etc. Clean hard hats with soap and water when they get dirty.
- Gloves (plastic and cotton) are to be maintained in an intact, clean, sanitary manner and are to be changed frequently to prevent sweating and soiling
- Product containers/packaging are not to be used for anything other than product
- Each person is responsible for keeping his/her work area clean and neat. Spills must be cleaned up promptly.
- Personal lockers must be maintained in a sanitary manner. DO NOT store food in lockers. Store food in the lunchroom only.

EXAMPLE 1 (continued)

Personnel Policies

(This example covers all P1 standards)

XYZ Food Facility	Personnel Policies P1 – P5	
	Written By: Brittany Alexis	Code: SOP P1

P1.2 Hand Washing

- Personnel must wash their hands
  - Whenever entering food handling and storage areas, following breaks or use of the washroom, lunch room, locker room and change room
  - Prior to handling food, ingredients, processing aids, packaging materials or food contact surfaces
  - Prior to putting on gloves
  - After:
    - Handling allergens or between handling different allergens
    - Sneezing, coughing
    - Tying of shoes, smoking
    - Touching your hair or face
    - Handling dirty or contaminated material or equipment (e.g. garbage bins, handle of lift trucks)
    - Using the washroom
    - Picking anything off the floor
  - Every time you switch to a new work location and or change the product being produced
  - Any other time hands may have become contaminated
- Steps for proper hand washing include:
  1. Remove jewelry (jewelry should not be worn in the facility)
  2. Wet hands and forearms with warm water
  3. Use soap
  4. Lather vigorously for 20 seconds
  5. Rinse
  6. Dry with paper towel
  7. Keep hands clean (turn off tap and open door with paper towel)
  8. Throw away paper towel

EXAMPLE 1 (continued)
Personnel Policies
(This example covers all P1 standards)

XYZ Food Facility	Personnel Policies P1 – P5	
	Written By: Brittany Alexis	Code: SOP P1

P1.3 Utensils

Personnel must follow the Colour Coding Policy for utensils as described below.

Cook Room		**Ingredient Prep Room**	
Waste containers	Grey	Scoops for soya (allergen)	Yellow
Product containers	White	Scoops for peanuts (allergen	Red
Rework containers	Yellow	Scoops for non-allergens	White
Garbage containers	Black		
Cleaning brushes	White		
Drain brush	Black (labelled "Cook Room")		
Brooms and dustpan	Grey		
Maintenance tools	Blue handle or blue tag		
Raw Room			
Waste containers	Purple		
Product containers	Red		
Rework containers	Brown		
Garbage containers	Black		
Cleaning brushes	Red		
Drain brush	Black (labelled "Raw Room")		
Brooms and dustpan	Purple		
Maintenance tools	Red handle or red tag		

Brushes, brooms squeegees and dust pans are to be stored on the labeled hooks
Scoops are to be stored on the labeled hooks

Utensils are not to be taken out of their assigned room
Personnel do not leave utensils anywhere they can fall into product, e.g. on the edge of bins, containers
Maintenance tools are not to be placed on food contact surfaces

EXAMPLE 1 (continued)
Personnel Policies
(This example covers all P1 standards)

XYZ Food Facility	Personnel Policies P1 – P5	
	Written By: Brittany Alexis	Code: SOP P1

P1.4 Injuries and Illness

Injuries & Wounds

- All cuts, grazes and open sores on exposed skin are to be covered by a company issued waterproof bandage (located in the First Aid cabinet)
  - Bandaged wounds on the hand must be covered with gloves
  - Change all waterproof coverings at every break/lunch, when returning from the washroom or when the covering becomes soiled
  - Personnel, including contractors are to report all cuts and wounds sustained in the workplace to the Shift Supervisor for appropriate first aid and application of protective coverings
- If food, ingredients, processing aids, packaging material or food contact surfaces are contaminated with blood, vomit, or saliva from an injury or illness immediately:
  1. Stop the production line if food, ingredients, processing aids, packaging materials or food contacts surfaces are affected or suspect
  2. Notify the Shift Supervisor
  3. Notify the Food Safety Coordinator or designate who will conduct a food safety assessment and complete the Injury Incident record and Hold Record
  4. Follow the appropriate sanitation procedures to clean and sanitize food contact surfaces and surrounding area

Illness

- Personnel must notify the Shift Supervisor before beginning their work day, if they are suffering from, show symptoms of, or are known to be carriers of an illness transmissible through food (Shigella and Salmonella bacteria, Hepatitis A virus, and noroviruses, etc.) so that any need for medical examination or possible exclusion from food handling can be considered:
  - Symptoms of a transmissible disease include:
    - Jaundice
    - Diarrhea
    - Vomiting
    - Fever
    - Sore throat with fever
    - Visibly infected skin lesions (e.g. boils, cuts)
    - Discharges from the ear, eye or nose
- Visitors and contractors, including pest control operators are to indicate on the RCD P1.5.2 Visitor Log that they are not suffering from, showing symptoms of, or known to be carriers of an illness transmissible through food
- Personnel experiencing coughing and sneezing should not directly handle or work around food, ingredients, processing aids, packaging or food contact surfaces. They should report their condition to the Shift Supervisor so that alternate arrangements of work duties can be made.

EXAMPLE 1 (continued)
Personnel Policies
(This example covers all P1 standards)

XYZ Food Facility	Personnel Policies P1 – P5	
	Written By: Brittany Alexis	Code: SOP P1

P1.5 Access and Traffic Patterns

Traffic Patterns

- All personnel are required to follow the designated traffic patterns to prevent cross-contamination (see RCD P1.5.1)
  - Personnel are to sanitize the bottom of their footwear in the provided foot baths when entering the production area or changing from one production area to another
  - Personnel are restricted to the immediate area of their workstations. Access to their workstations is to be as direct as possible, avoiding travelling through areas of other processing activities.
  - When changing from one area to another, personnel are to put on the appropriate smock for the area they are in or travelling through (e.g. put on a grey smock when travelling through the raw area and change to a white smock when entering the cooked area)
  - Exceptions to these traffic patterns include certain visitors, QC line inspectors, maintenance, pest control operator, and other personnel that need to travel in various areas of the facility throughout the day
  - Only authorized personnel wearing blue uniforms are allowed to enter the cooked room
  - Truck drivers are restricted to the receiving area
  - Contractors are restricted to the area they are working in
  - Start visitor tours from a clean area and travel toward less clean areas (e.g. start in the cooked area and travel toward the raw area)

Access

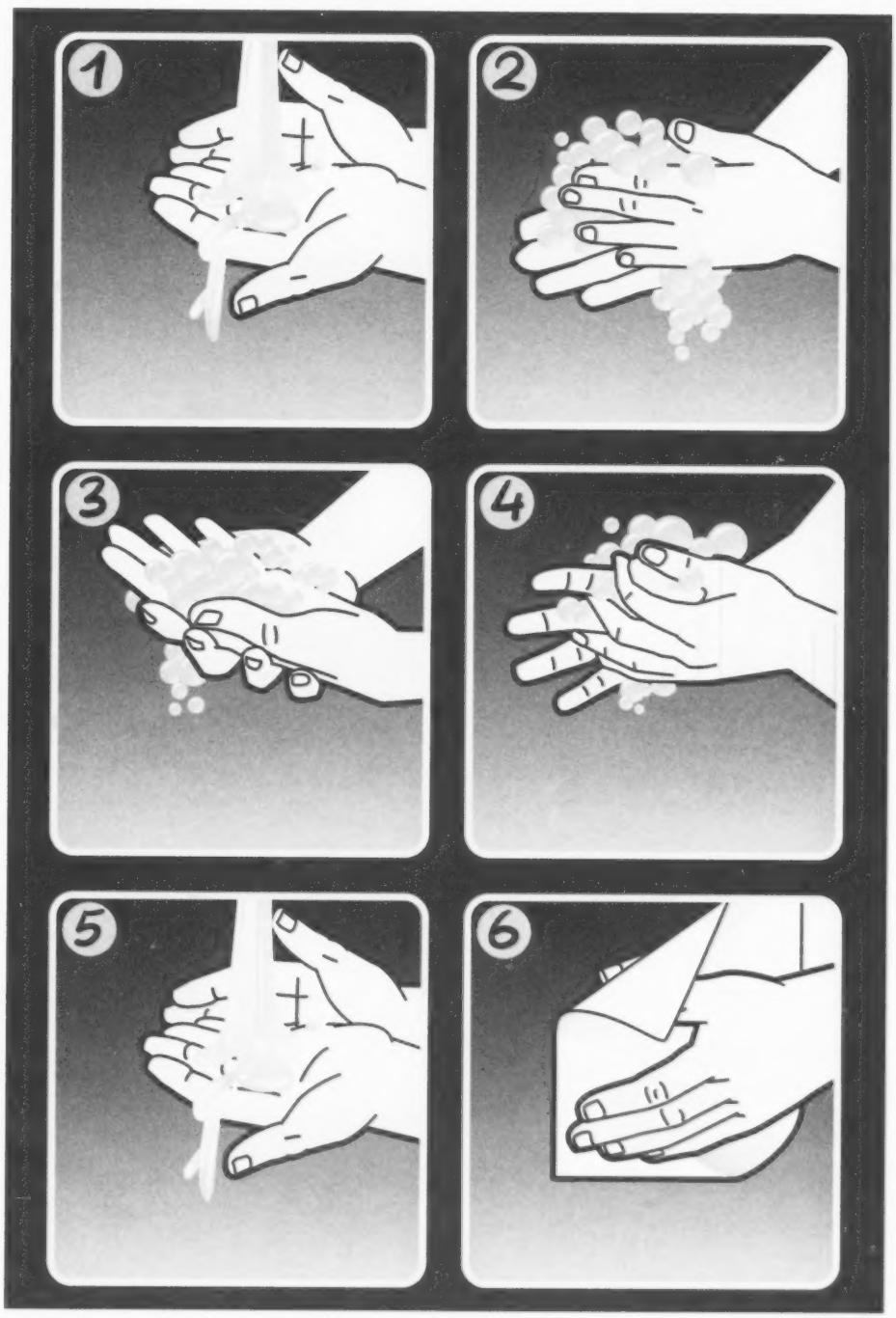
- Personnel must follow the controlled facility access policies listed below:
  - Employees enter the facility at the employee entrance
  - Visitors enter the facility at the Main Office. The receptionist will provide the Personnel Policy to all visitors.
    Visitors:
    - Are to comply with the Personnel Policies
    - Sign the Visitor Log
    - Will be accompanied at all times
    - Are restricted to authorized areas specific to the purpose of the visit
    - Are not to handle product unless authorized to do so
  - Before commencing work, contractors and pest control operators enter the facility at the maintenance entrance and sign the Visitor Log
    - Contractors and pest control operators are to review the pertinent Personnel Practices polices that apply to them
    - Contractors are not to leave their designated work area unless escorted by a facility employee
  - All exterior doors must be properly closed and secure
  - Drivers enter the facility at the shipping door and do not leave the shipping office

If you are unable to follow any part of this policy (e.g. no soap for hand washing, not enough hairnets) immediately notify the Supervisor to resolve the problem

EXAMPLE 2

Hand Washing Sign

XYZ Food Facility	Hand Washing	
	Written By: Steve Harris	Code: SOP P1.2.1



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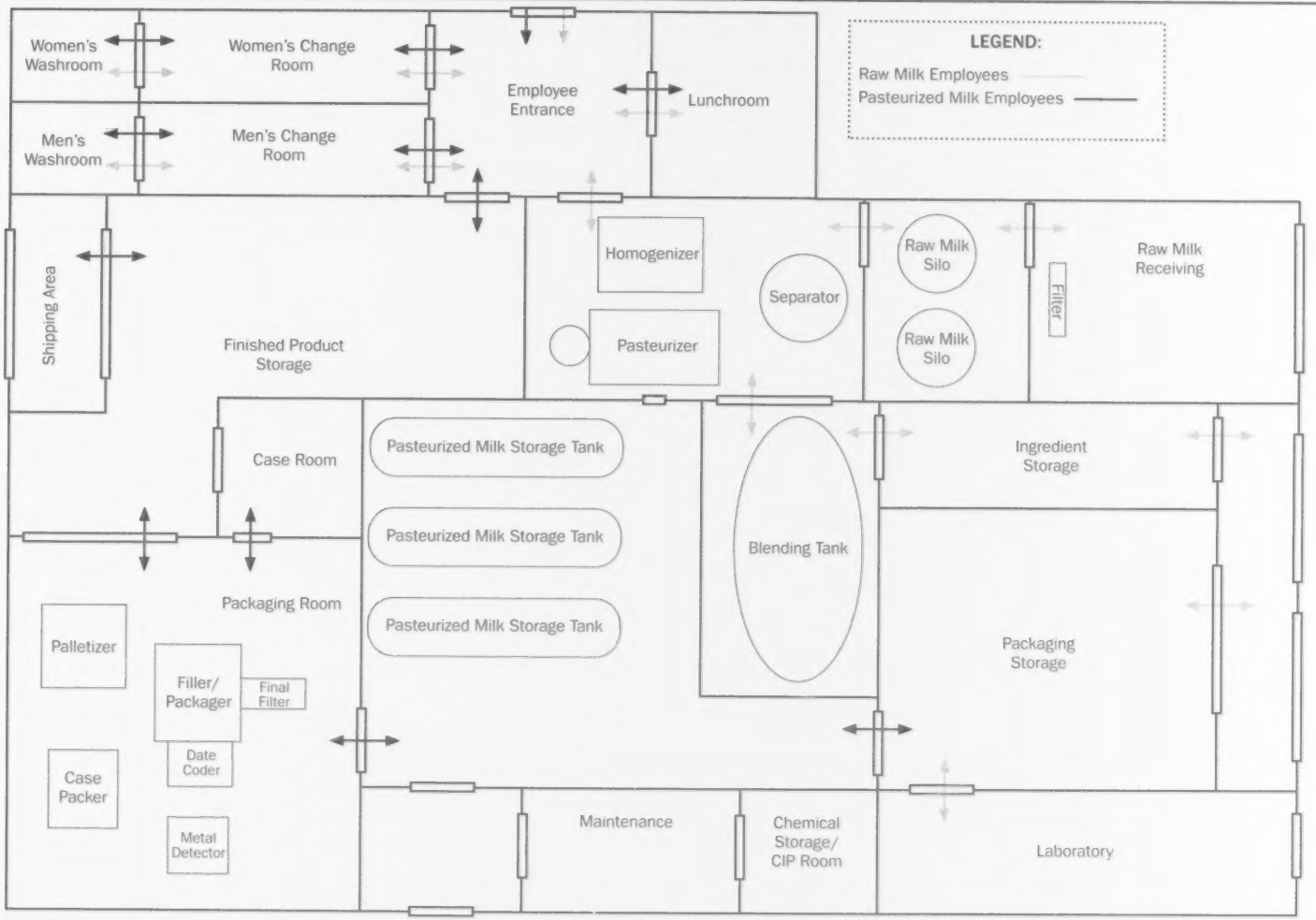
EXAMPLE 3
Storage Sign

White shovels, brushes, brooms and squeegees only

EXAMPLE 4

Facility Schematic – Traffic Flow of Personnel

XYZ Food Facility	Facility Schematic	
	Written By: Steve Harris	Code: RCD P1.5.1



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EXAMPLE 5
Visitor Log

XYZ Food Facility	Visitor Log	
	Written By: Steve Harris	Code: RCD P1.5.2

All Visitors and Contractors must read the Personnel Policies and have a facility escort prior to entering the facility.

Date	Name and Company of Visitor (please print)	Signature of Visitor – confirms that you have read and understand the Personnel Policies	Symptoms of illness? Yes or No	Time In	Time Out	Name and signature of facility escort – sign when visitor has signed out and left the facility

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EXAMPLE 6

Personnel Training Procedure

XYZ Food Facility	Personnel Training Procedure	
	Written By: Brooke Ashely	Code: SOP T1

Who:
Food Safety Coordinator or trained designate will deliver training to all employees

When:
- Prior to starting job duties
- Yearly refresher training
- When changes are made to the Personnel program
- As necessary if a deviation is found

What:
1. Ensure all appropriate personnel are present by cross-referencing the Master Training Schedule and Human Resources, new hiring lists
2. Take attendance then view the *Advantage GMP* Personnel Practices video
3. Train all trainees on P1 policies using OMAFRA's *Advantage GMP* Training Kit – Module 1: Personnel Practices
4. Demonstrate hand washing using glowing lotion and a ultraviolet light
5. After training has been completed all participants must complete the Personnel Training Assessment (RCD T1.2) and receive a passing mark of 16 out of 18
6. Upon completion of training, record the name and signature of the trainer, the name and signature of the persons trained, the training material presented and the date of the training, on RCD T1.1 Personnel Training Record

Deviations:	Corrective Actions:	Records:
Employee is absent from training	Train the employee before they start/return to work	RCD T1.1 Personnel Training Record
Employee did not pass the training assessment	Employee is re-trained on policies relating to the questions that were not answered correctly	RCD T1.2 Personnel Training Assessment

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EXAMPLE 7
Personnel Training Procedure

XYZ Food Facility	Personnel Training Record	
	Written By: Shannon Susa	Code: RCD T1.1

Date of Training Session: *January 24 2009*

Trainer's Name: *Dave Roach*

Signature of Trainer: *Dave Roach*

Training materials presented:

- Video presentation on Personnel — *Advantage GMP* Personnel Practices DVD
- Personnel policies from P1
- Glowing lotion and UV light demonstration for hand washing
- OMAFRA's *Advantage GMP* Training Kit – Module 1 Personnel Practices
- Personnel Training Assessment (RCD T1.2)

Name of Trainee (please print clearly)	Signature of Trainee
My signature verifies that I have received the training listed above and that I fully understand the training I received.	
Sarah Best	*Sarah Best*
Kaito Sheth	*Kaito Sheth*
Max Handwell	*Max Handwell*
Hank Nguyen	*Hank Nguyen*
Ahbed Abir	*Ahbed Abir*

All employees listed (and as indicated on the Training Schedule) must receive the training prior to starting job duties. If an employee is not present for the training session they must be trained upon their return to work.

Deviations:	Corrective Actions:

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EXAMPLE 8

Personnel Training Assessment

XYZ Food Facility	Personnel Training Assessment	
	Written By: Shannon Susa	Code: RCD T1.2

Name:_____ Date:_____

Answer the following questions as either True or False:

	True	False
1. Personnel policies are effective food hygiene policies and practices designed to protect the safety of food and they are to be practiced day-to-day in the plant		
2. It is important to control sneezes and coughs when working in food production areas because there are germs that live in the mouth and throat of some people. If these are deposited on food, they can grow and produce a poison.	T	F
3. Food-borne illnesses are diseases that are transmitted to food handlers only	T	F
4. It is important to control all glass materials present in the plant because it is very difficult to see it in food, it cannot be detected by metal detectors, it spreads a long way when shattered, and it can cause serious damage to the digestive system if swallowed	T	F
5. It takes 10 seconds to wash your hands properly	T	F
6. The four main steps of hand washing include: 1. Wet 2. Lather 3. Rinse 4. Dry	T	F
7. The right way to dispose of a paper towel and exit the washroom after you've dried your hands is to use the paper towel to turn off the tap then use the paper towel to open the door and dispose of the paper towel on the way out	T	F
8. "Loose items" that an employee should not wear/carry while on the job are: jewelry, watches, buttons/ badges/pins, hair decorations, false nails/nail polish/decorations, false eyelashes, pens, instruments, tools	T	F
9. It is important to remove jewelry while in the plant because it costs a lot of money to replace if you lose it	T	F
10. Employees who wear disposable gloves should wash the gloves if they become soiled	T	F
11. In terms of personal hygiene, the most important thing an employee can do to reduce the spread of illness through food and from person to person, is hand washing	T	F
12. You should wash your hands: before and after work, and after coughing, sneezing, scratching, going to the washroom, eating, breaks, lunch, handling chemicals or other non-edible materials, handling materials that could be contaminated, using the phone, changing job duties, etc.	T	F
13. The following items can be used to dry hands: an apron, a common-use paper towel, a wiping cloth	T	F
14. If hair is kept tied back neatly, a hairnet does not need to be worn	T	F
15. Employees should store their personal belongings on shelves in their working area to allow for quick access	T	F
16. If you get a minor cut on your hand, you should cover it with a bandage, and then with a glove	T	F
17. Disease carriers are people who carry an illness or disease and can transmit the disease to others, but may not appear to be visibly ill themselves	T	F
18. Proper access and traffic routes need to be established and followed in order to prevent cross-contamination between different areas in the plant	T	F

Mark: /18 (16 to pass) **Passed: Y – N** **Trainer Signature:** _____

EXAMPLE 9

Training Schedule

XYZ Food Facility	Training Schedule we do	
	Written By: Amy Christine	Code: RCD T1.3

All employees listed (and as indicated on the Training Schedule) must receive the training before starting work. If an employee is not present for the training session they must be trained upon their return to work.

Year: 2009

R = Training required Date = Date training was complete	Personnel New Hire & Annually		Receiving & Shipping New Hire & Annually		Handling New Hire & Annually		Sanitation New Hire & Annually		Preventative Mainten. New Hire & Annually		Pest Control New Hire & Annually		Recall New Hire & Annually		Water New Hire & Annually		Environment New Hire & Annually	
Employee	**R**	**Date**	**R**	**Date**	**R**	**Date**	**R**	**Date**	**R**	**Date**	**R**	**Date**	**R**	**Date**	**R**	**Date**	**R**	**Date**
Production																		
Sarah Lee (Supervisor)	✓	Ja 24			✓		✓		✓		✓		✓					
Kato Abbot (Line)	✓	Ja 24			✓		✓						✓					
Enza Meroni (Line)	✓	Ja 24			✓								✓					
Sanitation																		
Mustafa Po (Supervisor)	✓	Ja 24			✓		✓				✓							
Frank Smith (Sanitation)	✓	Ja 24			✓		✓											
Shipper/Receivers																		
Jess Allen (Supervisor)	✓	Ja 24	✓	Ja 12	✓						✓		✓					
Jeff Sabat (Shipper)	✓	Ja 24	✓	Ja 12	✓								✓					
Quality Control /Quality Assurance Personnel																		
Agnes Black (Supervisor)	✓	Ja 24			✓		✓		✓		✓		✓		✓		✓	
Steve Katsuno (Tech)	✓	Ja 24					✓		✓		✓		✓		✓		✓	
Maintenance																		
Bill Scheik (Supervisor)	✓	Ja 24			✓		✓		✓									
Ed Bono (Maintenance)	✓	Ja 24							✓		✓				✓		✓	
Office/Managers																		
Sam White (Manager)	✓	Ja 24									✓		✓					
Matthew Yee (Secretary)	✓	Ja 24											✓					

EXAMPLE 10

Personnel Verification Procedure

XYZ Food Facility	Personnel Verification Procedure	
	Written By: Kasey Marshall	Code: SOP V1

Who: Food Safety Coordinator

When: Daily

What:

1. Bring all P1 Personnel Polices and RCD V1 Personnel Verification Record with you onto the production floor
2. Following the Personnel Policies and the Verification Record, observe employee actions to confirm that employees are following personnel policies as written
3. If a policy is not followed, record this as a deviation and take corrective action
4. Upon completion of the verification, sign and date the Personnel Verification Record RCD V1

Deviations:	Corrective Actions:	Records:
Employees not following Personnel policies	• Record the deviation • Coach or retrain employee on proper policy • The Food Safety Coordinator may consider revising the policy to reflect what personnel are doing if it will not compromise food safety	RCD V1 Personnel Verification Record
If food safety may have been compromised	• Follow SOP P3.2.1 Hold procedure and then conduct a Food Safety Assessment (RCD P3.2.2)	
If deviation is recurring	• Perform a root cause analysis • If necessary, retrain employee, remove employee from these duties and/or begin the disciplinary action process	

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EXAMPLE 11

Personnel Verification Record

XYZ Food Facility	Personnel Verification Record P1.1 – P1.5	
	Written by: Fred Blare	Code: RCD V1

Who: Shift Supervisor
When: Daily, each shift
What: Observe and confirm that employees are following the Personnel policies and procedure
Complete this record sign, initial and date
The record is also used throughout the shift to record any deviations that occur during the shift.

A "✓" indicates that the criteria has been met
An "X" indicates that the criteria has not been met and there must be a note about the deviation and corrective action
"N/A" indicates that the particular criteria item does not apply

Name: John Brown — **Week of:** Jan 14, 2009

Area: Production Room — **Time:** 6:30am

Shift (circle one): (I: 11pm – 7am) II: 7am – 3pm III: 3pm – 11pm

Criteria	M 14th	Tu 15th	W 16th	Th 17th	F 18th	Deviation & Corrective Action – include item # and day (e.g. #5 Tuesday)
P1.1 Personnel Practices						#3 Monday - Anne was observed chewing gum - Anne was asked to dispose of the gum and I reviewed the policy on gum with her Jan.14/09 JB
1. Personnel cleanliness is acceptable	✓					
2. No sneezing or coughing on food, ingredients and packaging	✓					
3. No food, drink, tobacco, gum, spitting, medication outside designated area	X					
4. No jewelry, nail polish or false nails, badges, pins	✓					
5. Personnel changing gloves as required	✓					
6. No personal belongings stored in the processing areas	✓					
7. Cleanliness and suitability of protective clothing	✓					
8. Hairnets, beard nets worn properly	✓					
9. No glass containers	✓					
10. Cleanliness of work stations	✓					
11. Employees wearing proper coloured clothing for their work area	✓					
12. Clothing stored in their proper places	✓					
13. No food handling or packaging materials used for storage	✓					
14. No smocks or aprons worn in the washroom	✓					
15. No pens with lids	✓					
16. Nothing stored in pockets above waist	✓					
17. No glass or brittle material in processing area	✓					
18. No evidence of food in locker room	✓					
Initials:	JB					Note, if there is insufficient room for the deviations use the back of the record

EXAMPLE 11 (continued)
Personnel Verification Record

XYZ Food Facility	Personnel Verification Record P1.1 – P1.5	
	Written by: Fred Blare	Code: RCD V1

Who: Shift Supervisor
When: Daily, each shift
What: Observe and confirm that employees are following the Personnel policies and procedure
Complete this record sign, initial and date
The record is also used throughout the shift to record any deviations that occur during the shift.

A "✓" indicates that the criteria has been met
An "X" indicates that the criteria has not been met and there must be a note about the deviation and corrective action
"N/A" indicates that the particular criteria item does not apply

Name: John Brown — **Week of:** Jan 14, 2009

Area: Production Room — **Time:** 6:30am

Shift (circle one): (I: 11pm – 7am) II: 7am – 3pm III: 3pm – 11pm

Criteria	M 14th	Tu 15th	W 16th	Th 17th	F 18th	Deviation & Corrective Action – include item # and day (e.g. #5 Tuesday)
P1.2 Hand Washing						#19 Monday – At the beginning of the shift observed 10 personnel entering the production area – all personnel washed their hands as per the policy except Joe. Reviewed the hand washing policy with Joe and observed Joe washing his hands. Jan.14/09 JB #21 Monday – observed Joan in cooked area using a broom with a red handle instead of blue. Retrained Joan on colour code policy. Arranged to have floor in contact with broom sanitized. Jan.14/09 JB
19. Hand washing is performed prior to entering the production/ processing area, when hands become contaminated etc. according to hand washing policy	X					
20. Personnel are washing hands/gloves properly according to hand washing policy	✓					
P1.3 Utensils						
21. Utensils are handled and stored in designated areas	X					
22. Utensils are colour coded to prevent cross contamination	✓					
23. Utensils are placed on the appropriate wall hook	✓					
24. Brushes, brooms and squeegees are in their respective areas	✓					
25. Personnel do not leave utensils where they can fall into product	✓					
26. Maintenance tools are not placed on food contact surfaces	N/A					
Initials:	JB					Note, if there is insufficient room for the deviations use the back of the record

EXAMPLE 11 (continued)

Personnel Verification Record

XYZ Food Facility	Personnel Verification Record P1.1 – P1.5	
	Written by: Fred Blare	Code: RCD V1

Who: Shift Supervisor
When: Daily, each shift
What: Observe and confirm that employees are following the Personnel policies and procedure
Complete this record sign, initial and date
The record is also used throughout the shift to record any deviations that occur during the shift.

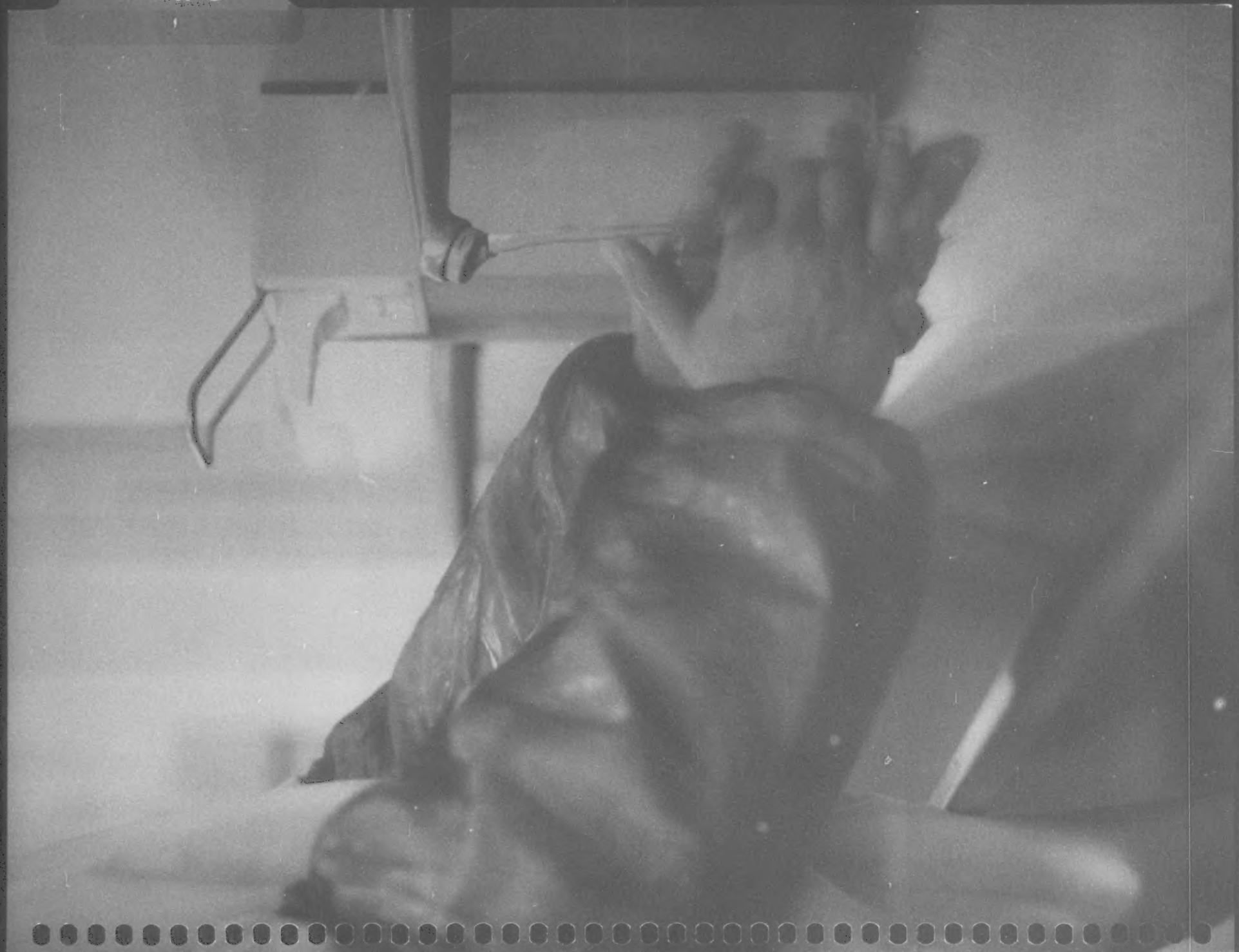
A "✓" indicates that the criteria has been met
An "X" indicates that the criteria has not been met and there must be a note about the deviation and corrective action
"N/A" indicates that the particular criteria item does not apply

Name: John Brown — **Week of:** Jan 14, 2009

Area: Production Room — **Time:** 6:30am

Shift (circle one): (I: 11pm – 7am) II: 7am – 3pm III: 3pm – 11pm

Criteria	M 14th	Tu 15th	W 16th	Th 17th	F 18th	Deviation & Corrective Action – include item # and day (e.g. #5 Tuesday)
P1.4 Injuries and Illness						#27 Monday - observed Jim wearing a non-company issued bandage - instructed Jim to remove and replace with proper bandage. Jan.14/09 JB #35 Monday - observed a Contractor – Bob Brown of ABC Contracting Co in an unauthorized area. Reviewed Access policy and Informed the Maintenance Supervisor. Jan.14/09 JB
27. All cuts and grazes on exposed skin are covered by a company issued waterproof bandage and glove	X					
28. Personnel directly handling or working around food, ingredients, processing aids, packaging or food contact surfaces are not observed to be coughing and sneezing	✓					
29. Policy followed for contamination with blood, saliva and/or vomit	N/A					
30. Visitors (e.g. contractors, tours) not observed to be coughing, sneezing or showing any symptoms of illness	N/A					
P1.5 Access and Traffic Patterns						
31. Employees, contractors are complying with the designated traffic pattern	✓					
32. Employees are in designated areas	✓					
33. Personnel are using footbaths when entering the production area	✓					
34. Drivers do not leave the shipping office	✓					
35. Contractors do no leave their designated work area	X					
36. Employees enter through the employee entrance only	✓					
37. Visitors enter through the main office	✓					
38. Visitors complete the Visitor Log	✓					
39. Visitors are accompanied while in the facility	✓					
Initials:	JB					Note, if there is insufficient room for the deviations use the back of the record



Receiving & Shipping

Why is it Important to Have a Receiving and Shipping Program?

A receiving and shipping program is designed to ensure that the correct food, ingredients, processing aids, packaging materials, and chemicals from approved suppliers, arrive at the facility undamaged.

Product that has been returned should be fully controlled. Product that has left the facility could have been subject to temperature abuse, poor storage conditions or may have been altered and could therefore be contaminated. A receiving and shipping program includes specific instructions for receiving and controlling returned items.

If the facility has products which contain allergens, specific instructions for receiving the allergens must be developed to ensure that non-allergen product is not contaminated.

Many types of chemicals are used in the operation of a food processing facility. Some chemicals are approved for use in a food facility while others are strictly chemicals that would be used outside or for maintenance purposes. Specific instructions for receiving chemicals need to be developed to prevent cross-contamination.

Food safety starts before food, ingredients, processing aids, packaging materials and chemicals enter the facility and continues after the finished product leaves the facility. Contamination can occur during transport, if the vehicle is not suitable to transport food, is not properly constructed, is not clean or is not kept in good repair. Vehicles can also lead to physical contamination from dust and foreign material, chemical contamination from previous loads or biological contamination from improperly cleaned areas that can result in microbial growth. The receiving and shipping program ensures food arrives and leaves in a clean vehicle that is suitable to transport food, at the suitable temperature, undamaged and uncontaminated.

P2 Receiving & Shipping

Receiving P2.1

Written receiving procedures and corresponding records are in use for incoming food, ingredients, processing aids, packaging materials and returned product. The procedures include instructions for:

- Inspecting transport vehicles for:
  - Cleanliness, no evidence of pests and in good repair
  - Separation of incompatible materials to prevent cross contamination
  - Suitability to transport food
- Inspecting incoming food, ingredients, processing aids and packaging materials for:
  - Signs of spoilage, damage, contamination
  - Appropriate temperature and temperature abuse
- Approving suppliers
- Ensuring the correct delivery from approved supplier and supporting documents
- Unloading to ensure contents are not damaged or contaminated
- Receiving incompatible items separately, to prevent cross contamination
- Ensuring packaging materials are food grade

Suggestions to Meet the Standard

Develop receiving procedures (see Example 1 for receiving food, ingredients, processing aids, packaging materials and returned product; see Example 2 for receiving chemicals)

- A clean transport vehicle in good repair should not have foul odours, condensation, mould, rust, flaking paint, or damaged floors, walls or ceilings
- You may request wash tickets for tankers or trucks to demonstrate cleanliness
- The temperature of the transport vehicle should be taken if the product requires refrigeration (4°C or less) or freezing (-18°C or less)
- Incoming food and ingredients requiring refrigeration should be received at 4°C or less and product that is frozen should be -18°C with no evidence of thawing
  - To get an accurate temperature of the load, take product temperatures throughout the truck e.g. back, middle and front and record separately, do not average the readings
- Food, ingredients, processing aids and packaging materials should be physically separated on transport vehicles from incompatible items such as allergens and returned products. Raw and cooked food should also be separated.
  - Allergens should not be stacked on top of food, ingredients, processing aids or packaging material (see P3.3 Allergen Control for more information)
  - Returned product should be clearly marked and separated on the transport vehicle as well as on the receiving dock
  - Skids of incompatible materials should not touch each other

P2 Receiving & Shipping

Suggestions to Meet the Standard

- Chemicals should not be on the same transport vehicle as food, ingredients, processing aids, packaging materials and non-food chemicals
- Food, ingredients, processing aids and packaging material should be inspected:
    - To ensure the expiration date or the best before date has not passed
    - For signs of spoilage, such as: off odours, colours or mould
    - For signs of contamination (spills, drips, pest droppings, metal, glass, etc.)
    - For signs of damage. If the packaging that is in direct contact with the product is damaged (ripped, cut, pierced, melted) the safety of the product could be compromised and a Food Safety Assessment should be conducted.
- Loads of incompatible materials should be received separately, this can be achieved by receiving at different times or at different doors. An example chemical receiving procedure is included in this section. For suggestions of what to include in your receiving chemical procedure see P2.4 Chemical Control.
- Packaging material should be food grade and recognized by a government agency such as the CFIA, Health Canada, the FDA or the Food Standards Agency (EU)
    - The CFIA Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products can be found at *www.inspection.gc.ca*
- P3.3 Allergen Control and P3.4 Chemical Control should be reviewed and details regarding receiving can be included with the procedures developed here

Develop corresponding receiving records (see Example 3)

Develop instructions for approving food, ingredient, processing aid, packaging material and chemical suppliers. Methods for approving suppliers may include audits of their facility, food safety questionnaires or proof of implemented food safety program (see Example 4)

- All approved suppliers should be on a list that is accessible to receiving personnel, for example, posted in the Receiving office (see Example 5)
    - Incoming loads may also require supporting documents such as: certificates of analysis and letters of guarantee to ensure incoming materials are free from parasites, undesirable micro-organisms, pesticides, veterinary drugs, toxic substances and extraneous matter

P2 Receiving & Shipping

Shipping P2.2

Written shipping procedures and corresponding records are in use for all outgoing product. The procedures include instructions for:

- Inspecting transport vehicles for:
  - Cleanliness, no evidence of pests and in good repair
  - Appropriate temperature
  - Suitability to transport food
- Inspecting finished product for:
  - Signs of spoilage, damage, contamination
  - Appropriate temperature
- Loading to ensure:
  - Product is not damaged or contaminated
  - The load is secure for transport
  - The load matches the purchase order
  - Separation of incompatible materials to prevent cross contamination

Suggestions to Meet the Standard

Develop shipping procedures (see Examples 6)

- Inspect the transport vehicle before it is loaded to ensure it is clean and there is no evidence of foul odour, condensation, pests, rust, mould, flaking paint or damage to floors, walls or ceilings
  - The facility may request wash tickets for tankers or trucks to demonstrate cleanliness
- If the product being shipped requires refrigeration (4°C or less) or freezing (-18°C or less) ensure the transport vehicle and outgoing product is at the appropriate temperature
  - Temperature of the product and vehicle, should be taken immediately prior to loading
- Inspect outgoing product for:
  - Signs of spoilage (off colour, odour or texture)
  - Damage, if the packaging that is in direct contact with the product is damaged (ripped, cut, pierced, etc.) the safety of the product could be compromised and a Food Safety Assessment should be conducted
  - Signs of contamination (spills, drips, etc.)
- Loading practices should be developed to prevent damage to skids and packaged product
- Inspect the load to ensure:
  - Product is undamaged (no ripped boxes, dented cans, etc.)
  - It is secure, to prevent shifting or damage during transport
  - The correct product is shipped to the appropriate customer and the order matches the load/ contents amount

P2 Receiving & Shipping

Suggestions to Meet the Standard

- Incompatible products are physically separated on transport vehicles such as allergen and non-allergen and raw and cooked product
  - Product containing allergens should not be stacked on top of non-allergen product
  - Skids of incompatible materials should not touch

Develop corresponding shipping records (see Example 7)

T2 Receiving & Shipping

Receiving & Shipping Training T2

Written procedures and corresponding records are in use for training on the receiving and shipping program. The procedures identify:

- Personnel who require training
- The trainer
- Training material used
- Frequency of training
- Assessment method to confirm the training is understood

Training is provided prior to starting all job duties, and whenever changes are made to the receiving and shipping program.

Refresher training is provided at minimum once per year.

Develop a training procedure (see Example 8)

- Include instructions to ensure all the appropriate personnel are present for training (e.g. cross-reference training list, training schedule and up-to-date employee lists)
- The training program for receiving and shipping should address all standards within the section, and will involve employees who perform receiving and shipping duties
- Materials that can be used to support training of the receiving & shipping program include:
    - Procedures developed in P2.1 and P2.2
    - The receiving and shipping portion of OMAFRA's *Advantage GMP* Training Kit – Module 2: Shipping, Receiving, Handling & Storage
    - Hands on training
    - Videos/visual aids

Develop corresponding records for the training material presented: (see Example 9)

- Training records list who is in attendance, the date the training took place, the topic, the material used and the name and signature of the trainer
- The training records have space for employees to initial or sign to indicate that they received the training

Develop a method to assess and prove that employees who were trained understood the training material

- For example a written or verbal test, observe the employee performing the task, job shadowing for a probation period (see Example 10)

Develop a training schedule. The training schedule should include the names of personnel that require training.

- The training schedule is predetermined and indicates who needs to be trained and how often refresher training will occur
    - How often you have refresher training depends on your commodity, employee turnover rate and/or season of production e.g. once per year, once per season, or every six months
- It may be easier to have one schedule for all 9 training standards (see Example 9 in P1 Personnel)

T2 Receiving & Shipping

Suggestions to Meet the Standard

Remember to include deviations and corrective actions in training procedures (e.g. documenting employees absent from training and/or reassessing training materials if training is not effective)

All 9 GMP sections require training procedures and records be developed and used. You may consider combining training procedures and records for some or all 9 GMP sections. If training procedures are combined, be sure to include details from all sections in the combined procedure (e.g. materials used to train each section, detailed schedule).

V2 Receiving & Shipping

Receiving & Shipping Verification V2

Written procedures and corresponding records are in use for receiving and shipping verification, which confirms at pre-determined intervals that:

- Receiving and shipping activities are being performed as written
- Records are completed properly

Suggestions to Meet the Standard

Develop verification procedures

- To verify the receiving and shipping program the most common method is to observe the task being performed and record whether the task is performed as written (see Example 11)
- Other methods include:
    - Interviewing the employees regarding the procedures and corrective actions for which they are responsible e.g. ensuring that the receiving employees are aware of the approved supplier list and approved packaging materials and chemicals
    - The verifier performs the activities written in the procedures and compares the findings to those of the designated employee. (NOTE: this method may only be carried out if the verifier and the designated employee perform the activities at the same time or within a minimal period of time from one another, so that the conditions of the activities are similar.)
- To verify that receiving and shipping records are being properly completed, all the records since the last verification should be reviewed. If no deviations are found, the number of records being verified can be decreased. Verification of the records is done to ensure that:
    - Mistakes have been crossed through with a single line and initialled by the designated employee and that liquid paper has not been used
    - Documents have been completed in permanent ink (no pencil)
    - All records are signed and dated by the designated employee
    - No blank spaces have been left on the record, if necessary "N/A" was recorded
    - The activities have been carried out in the appropriate frequency
    - There is no evidence of falsified entries
    - All deviations and corrective actions are documented and are suitable
    - If food safety was compromised, effected items were put on Hold and a Food Safety Assessment was conducted
    - If a deviation was recurring, a root cause analysis was conducted

V2 Receiving & Shipping

Suggestions to Meet the Standard

Develop a receiving and shipping verification schedule based on the risk of the activity being performed

- If ingredients, processing aids, packaging materials or chemicals are found damaged in the storage area, this may indicate that verification of receiving should be increased
- If there is a high employee turnover rate in the facility, it might be necessary to increase the frequency of the verification to ensure that the employee responsible for the receiving and shipping is performing the activities according to the written procedures
- Generally, if the activity occurs daily then the verification would occur weekly, if the activity occurs weekly then the verification would occur monthly, and so on

Develop corresponding records for receiving and shipping verification procedures, remember to include corrective actions in all procedures and records (see Example 12)

- A separate verification record can be created from the monitoring record or a column or space right on the monitoring record can be created for the verifier to record findings and to date and sign
- All procedures and records that relate to the receiving and shipping program should be listed on the verification record

EXAMPLE 1

Receiving Procedure – Food, Ingredients, Processing Aids and Packaging Materials

(for a processing facility making a variety of salads containing fruits, vegetables and nuts)

XYZ Food Facility	Receiving Procedure (Food, Ingredients, Processing Aids & Packaging Materials)	
	Written By: A. Smith	Code: SOP P2.1.1

Who	When
Designated trained receiving personnel	Upon receipt of all incoming loads

What

Before Unloading

1. Check that the supplier is listed on the "Approved Supplier List" posted on the wall in the Shipping office
2. According to the "Approved Supplier List", get the correct documents, if any, from the driver
3. Check that the truck and dock bumpers have created a seal between the truck and the facility (i.e. no outside light is visible around the truck door)
4. Check that the reefer is set to the correct temperature
   - For all loads needing refrigeration, the reefer must be 4°C or less (dressing, vegetables)
   - For all loads needing freezing the reefer must be –18°C or less (frozen fruit)
   - Packaging and dry ingredients (nuts, spices), do not need refrigeration
5. Check that pallets containing allergens (nuts) and/or returned product were not touching or stored above any other pallets while on the truck

Unloading the Truck

1. Unload to the dock after inspection of the load and truck interior is complete
2. Ensure unloading does not cause damage to the load – do not hit pallets with the forklift, do not hit pallets against each other
3. As each pallet is being taken off the truck, check for damage or contamination (ripped, leaking or discoloured packaging, spills, drips, pest droppings, metal, glass)
4. For all frozen food, check for signs of thawing (food not frozen solid, colour change, freezer burn, ice crystals)
5. Check all loads for past expiration dates or spoiled food (e.g. mould, foul odours or colours)
6. Check the temperature of refrigerated loads by placing the temperature probe between two pieces of packaged food
   Check the surface temperature of frozen loads using the infrared thermometer and look for signs of thawing
   - Take the temperature three times per load, at the front, middle and rear of the load
   - For all food that requires refrigeration it must be 4°C or less
   - For all food that requires freezing it must be -18°C or less
7. Check that chemicals were not transported on the same truck as food, ingredients, processing aids and packaging material
8. Check that there is no condensation on the truck
9. Check that the load contents and quantity match the Purchase Order
10. Do not allow allergens, or returned product to touch any other pallets while unloading or sitting on the dock

After Unloading

1. Check that the inside of the truck is visibly clean and has no: mould, rust, flaking paint, wood splinters, damaged floors, walls or ceilings, condensation, or evidence of pests (e.g. flies, rodent droppings, carcasses)
2. Check that the truck has no foul odours
3. Before moving allergens (nuts) from the dock to storage, apply an orange "Allergen" label to all four sides of the pallet
4. Before moving returned product from dock, apply yellow "Hold" label to all four sides of the pallet
5. Do not allow food, ingredients, processing aids and packaging materials to sit on the dock for longer than 20 minutes
6. Complete the Receiving Record RCD P2.1.1., date and initial

EXAMPLE 1 (continued)

Receiving Procedure – Food, Ingredients, Processing Aids and Packaging Materials

(for a processing facility making a variety of salads containing fruits, vegetables and nuts)

XYZ Food Facility	Receiving Procedure (Food, Ingredients, Processing Aids & Packaging Materials)	
	Written By: A. Smith	Code: SOP P2.1.1

Deviations:	**Corrective Actions:**	**Records:**
Supplier not listed on "Approved Supplier List"	Do not unload. Inform Shipping Supervisor and Purchaser who will determine if supplier meets requirements. If not, reject the load.	RCD P2.1.1 Receiving Record
Purchase Order doesn't match the load, incorrect quantity	Accept the load, record the quantity on the RCD P2.1.1 Receiving Record under Deviation, and inform the Shipping Supervisor.	
Driver does not have correct documentation	Do not unload. Inform Shipping Supervisor who will ensure correct document is received before permitting truck to be unloaded.	
Reefer temperature is set too high	Take temperature of product from the outside and centre of EVERY pallet and reject load if product temperature is too high.	
Incompatible loads (allergens, returns and chemicals) were not separated from all other food while on the truck	Do not unload, reject load and inform Shipping Supervisor.	
Incompatible loads found after unloading has begun	Stop unloading, follow Hold Procedure SOP P3.2.1 for unloaded items and inform Shipping Supervisor. Reject remainder of load still on the truck.	
Load is damaged during off-loading	Follow Hold Procedure P3.2.1. Clean any spills immediately.	
Load is damaged or appears contaminated, evidence of thawing, or expiration dates have passed	Do not unload, reject load and inform Shipping Supervisor.	
Product temperature too high	Reject load. Inform Shipping Supervisor.	
Inside of truck in poor condition (dirty, odours, rust, evidence of pests, condensation, etc.)	Follow Hold Procedure SOP P3.2.1. for any unloaded items. Inform Shipping Supervisor who will perform a Food Safety Assessment.	
Purchase Order doesn't match the load, incorrect item(s)	Inform the Shipping Supervisor who will determine if the load will be accepted.	
Food safety is compromised	Inform Supervisor. Follow Hold Procedure SOP P3.2.1.	
If deviation is recurring	Inform Supervisor and ensure a root cause analysis is performed.	

EXAMPLE 2

Receiving Procedure – Chemicals

This procedure has been written for a plant with only one shipping door, and includes instructions to separate receiving of chemicals and food by receiving them at different times. Ideally incompatible items, like ingredients and chemicals would be received at different designated doors.

XYZ Food Facility	Receiving Procedure (Chemicals)	
	Written By: A. Smith	Code: SOP P2.1.2

Who:	**When:**
Designated trained receiving personnel	Upon receipt of all incoming chemical loads

What:

Chemical delivery is scheduled for the late afternoon after production so no chemicals are on the dock with food, ingredients, processing aids and packaging material.

Before Unloading

1. Check that the supplier and chemical(s) are listed on the "Approved Supplier List" posted on the wall in the shipping office.
2. Check that pallets containing chemicals for use in food areas were not touching or below any pallets of chemicals not permitted in food areas, while on the truck (chemicals for use in food areas are: hand soap, maintenance grease, sanitizer, detergent, boiler chemicals)

Unloading the Truck

1. Unload to the dock after inspection of the load is complete
2. Ensure unloading does not cause damage to the load – do not hit pallets with the forklift, do not hit pallets against each other
3. As each pallet is being taken off the truck, check for damage or contamination (ripped, leaking or discoloured packaging, spills, drips, pest droppings, metal, glass)
4. Check that the load contents and quantity match the Purchase Order
5. Do not allow chemicals for use in food areas to touch any pallets of chemicals not permitted in food areas, while unloading or sitting on the dock

After Unloading

1. Before moving chemicals from the dock to storage, apply colour-coded labels to EVERY box or container as follows:
   Purple label on chemicals not permitted in food processing areas (outdoor salt)
   Green label on chemicals for use in food processing areas (hand soap, maintenance grease, sanitizer, detergent, ink for labelling)
2. When the entire load has been unloaded and the load has been inspected, complete record RCD P2.1.1

Deviations:	**Corrective Actions:**	**Records:**
Supplier not listed on Approved Supplier List	Do not unload. Inform Shipping Supervisor and Purchaser who will determine if supplier meets requirements. If not, reject the load.	RCD P2.1.1 Receiving Record
"Purchase Order" doesn't match the load, incorrect quantity	Accept the load, record the quantity on the RCD P2.1.1 Receiving Record under Deviation, and inform the Shipping Supervisor.	
Incompatible loads were not separated on the truck	Do not unload, reject load and inform Shipping Supervisor.	
Load is damaged during unloading	Clean any spills, following Chemical Spill Clean-up procedure. Inform the Shipping Supervisor.	
Load is damaged or appears contaminated	Do not unload, reject load and inform Shipping Supervisor.	
Purchase Order doesn't match the load, incorrect item(s)	Inform the Shipping Supervisor who will determine if the load will be accepted.	
Food safety may have been compromised	Inform Supervisor. Follow Hold Procedure SOP P3.2.1.	
If deviation is recurring	Inform Supervisor and ensure a root cause analysis is performed.	

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EXAMPLE 3

Receiving Record

XYZ Food Facility	Receiving Food, Ingredients, Processing Aids, Packaging Materials and Chemicals Record	
	Written By: A. Smith	Code: RCD P2.1.1

Who: Designated Trained Receiving Employee

When/What: Record the Date and your name in the space provided. For each load, record the Purchase Order # and answer each question with either "Yes" or "No", or a # when recording the temperature. N/A should be recorded if the questions do not apply (e.g. if the load is a chemical load, "N/A" will be recorded for all of the questions in the Food, Ingredient, Processing Aids and/or Packaging Materials section). For all questions answered with a "No", record the deviation and corrective action. When the procedure is complete, initial the bottom of the record for each Purchase Order #. Start a new record for each day.

Name:

Date:	**Purchase Order #**	**Purchase Order #**	**Purchase Order #**
Purchase Order matches what was received?			
Supplier listed on Approved Supplier List?			
Correct documents received?			
Food, Ingredients, Processing Aids and/or Packaging Materials			
Reefer at correct temperature? (Refrigerated ≤4°C, Frozen ≤-18°C)			
Allergens & returned product separated from all other items on the truck?			
Load not damaged while unloading?			
Load has no signs of damage or contamination (e.g. rips, leakage, discolouration)?			
Frozen food/ingredients have no signs of thawing?			
Expiration dates have not passed?			
No signs of spoilage (e.g. odours, mould)?			
Product at correct temperature? (Refrigerated ≤4°C, Frozen ≤-18°C)			
Product Temperature (taken three times per load)	°C °C °C	°C °C °C	°C °C °C
Truck only contains food, ingredients or packaging? (i.e. no chemicals)			
While on the dock, allergens & returned product were not permitted to touch other loads?			
Truck is clean and in good repair? (has no mould, rust, flaking paint, wood splinters, damaged floors, walls or ceilings, evidence of pests, no condensation)			
Truck has no foul odours?			
Colour-coded labels put on allergens (orange) and returned product (yellow)?			
Chemicals			
Chemicals for use in food areas separated from other chemicals while on the truck?			
Load has no signs of damage or contamination (e.g. rips, leakage, discolouration)?			
Loads of non-food area chemicals not permitted to touch loads of food area chemicals?			
Colour-coded labels applied?			
Deviations and Corrective Actions			
Deviations			
Corrective Actions			
Initials			

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EXAMPLE 4

Approving Suppliers Procedure

XYZ Food Facility	Approving Suppliers Procedure	
	Written By: A. Smith	Code: SOP P2.1.3

Who: Trained Purchasing Staff

When: Whenever a new ingredient, processing aid, packaging material, chemical or new supplier is being considered. The steps below will be followed before supplies are ordered.

What:

When a new **supplier and/or ingredient** is being considered:

1. Request a copy of any food safety certifications or food safety audit reports the supplier may have. If they can provide a copy of a current certificate or audit report demonstrating they have been audited by an external organization, no further documentation is required to approve them as a supplier (for food safety purposes), continue to step 4.
2. If the supplier cannot provide a current food safety certificate or audit report, the supplier must complete "XYZ Food Facility's Food Safety Questionnaire", detailing their food safety practices and commitment to food safety.
3. Once, the completed questionnaire is received from the supplier, it shall be given to the Food Safety Coordinator to determine if the supplier meets "XYZ Food Facility's" food safety requirements to be an approved supplier.
4. Food Safety Coordinator reviews and approves new ingredient food safety specifications (e.g. allergen content, microbial limits)
5. Once a new supplier and/or ingredient has been approved (either by submitting an external food safety audit OR by the Food Safety Coordinator), they can be added to the RCD P2.1.2 Approved Supplier List along with the date they were approved, the documentation they provided (certification, report or questionnaire) and sign-off by the Food Safety Coordinator on all questionnaires.

When a new **packaging material** or **chemical** is being considered:

1. Search the CFIA's Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products (*www.inspection.gc.ca*) for the item being considered. If the item appears on CFIA's list, it is an approved item. Add the item to the "Approved Supplier List" beside the approved supplier's name.
2. If the item does not appear on CFIA's list, request a Letter of No Objection (from Health Canada) from either the supplier or directly from Health Canada.
3. Once a Letter of No Objection from Health Canada has been received, add the item to the "Approved Supplier List" beside the approved supplier's name.

After approving a new, ingredient, packaging material, or chemical:

1. Add new items to the "Approved Supplier List" beside the approved supplier's name
2. Meet with Food Safety Coordinator to determine if additional information or documentation is required e.g. Certificate of Analysis, Wash Ticket, Letter of Guarantee, Product Specification
3. Add any required documentation to the "Approved Supplier List", along with when the documentation is required.

Maintain a file for each supplier including copies of their Food Safety Certificate, Food Safety Questionnaire, Letters of No Objection, Letters of Guarantee, product or ingredient specification, etc.

If any changes have been made to the "Approved Suppler List", make sure an updated copy is in the Shipping area for reference by Receiving personnel. Ensure that revisions of all documents are logged in the logbook, dated and signed.

Deviations:	**Corrective Actions:**	**Records:**
Info on "XYZ Food Facility's Food Safety Questionnaire" is suspect	Do not list the supplier on the "Approved Supplier List". The FS Coordinator may request additional documentation or perform an on-site supplier audit.	RCD P2.1.2 Approved Supplier List

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EXAMPLE 5

Approved Suppliers List

XYZ Food Facility	Approved Supplier List	
	Written By: A. Smith	Code: RCD P2.1.2

Packaging Materials and Chemicals

Approved Supplier Date and Name	Food Safety Certificate or Questionnaire (include FS Coordinator's sign off)?	Approved Packaging Material or Chemical	CFIA Reference List or Letter of No Objection?	What documents must be supplied?	When do the documents have to be supplied?
Jan. 21/07 SuperChem	Questionnaire *John Yates*	Fat-B-Gone Drain Cleaner	CFIA List	None	N/A
Jan. 21/07 SuperChem	Questionnaire *John Yates*	SuperSanitizer	CFIA List	None	N/A
Jan. 21/07 SuperChem	Questionnaire *John Yates*	AceFoamer	Letter No Objection	None	N/A
March 8/07 Pete's Food Packaging Inc.	Food Safety Certificate	Plastic Domes	CFIA List	Letter of Guarantee	– At the beginning of contract (in file) – Annually
March 8/07 Pete's Food Packaging Inc.	Food Safety Certificate	Buckets	CFIA List	Letter of Guarantee	– At the beginning of contract (in file) – Annually

Food, Ingredients and Processing Aids

Approved Supplier Date and Name	Food Safety Certificate or Questionnaire (include Food Safety Coordinator's sign off)	Approved Food or Ingredient	What documents must be supplied?	When do the documents have to be supplied?
Oct.30/06 Farmer Brown's	Questionnaire *John Yates*	Fresh-cut Sweet Peppers	Product specifications	N/A
Oct.30/06 Farmer Brown's	Questionnaire *John Yates*	Banana	None	N/A
March 20/08 Grains R Us	Food Safety Certificate	Nuts	Certificate of Analysis	Every Shipment
April 7/08 Henry's Herbs	Questionnaire *John Yates*	Spices	None	N/A
April 28/08 Burlington Grocery Supply	Food Safety Certificate	Dressing	Wash tickets for bulk containers	Every Shipment

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EXAMPLE 6

Shipping Procedure

(for a processing facility making a variety of salads containing fruits, vegetables and nuts)

XYZ Food Facility	Shipping Procedure	
	Written By: A. Smith	Code: SOP P2.2.1

Who:	**When:**
Designated trained shipping personnel	Every shipment

What:

Before Loading

1. Check that the truck is refrigerated and that the reefer is on and set to the correct temperature (4°C)
2. Check that the truck and dock bumpers have created a seal between the truck and the facility (i.e. no outside light is visible around the truck door)
3. Check that the inside of the truck is visibly clean and has no: mould, rust, flaking paint, wood splinters, damaged floors, walls or ceilings, condensation, foul odours or evidence of pests (e.g. flies, rodent droppings, carcasses).
4. Using the "Pick List" determine what is to be shipped, and move it to the staging area of the shipping dock, choose the oldest products first
5. As product is moved to the staging area check for signs of spoilage (off colours or odours) and damaged or contaminated packaging (holes, rips, spills, drips)
6. Check the temperature of finished product by placing the temperature probe between two pieces of packaged food. Take the temperature three times per load, each from a different skid. All finished product must be 4°C or less before being shipped. Record the product temperatures on the Shipping Record RCD P2.2.1.

Loading the truck

1. Ensure loading does not cause damage to the load – do not hit pallets with the forklift, do not hit pallets against each other
2. Load the truck so that the load is secure and will not shift during transport (e.g. do not stack, load as tightly as possible without causing damage)
3. On the truck, separate product with allergens (nut salads) and products without allergens. If the truck is not capable of separating product, separate product by placing a sheet of cardboard between the skids.

After Loading

1. Ensure that the correct product and amount, is shipped to the correct customer by matching the Bill of Lading(s) to the truck contents.
2. Complete RCD P2.2.1 Shipping Record, leaving no blanks before initialling and dating.

Deviations:	**Corrective Actions:**	**Records:**
Vehicle doesn't meet any one of the listed criteria (not refrigerated, dirty, poor condition, condensation, etc.)	Do not load the truck, inform Supervisor who will decide with the Food Safety Coordinator, what action should be taken	RCD P2.2.1 Shipping Record
Reefer not turned on or not set to correct temperature (4°C)	Close the truck (and move if necessary), have the driver turn the reefer on, do not load until 4°C has been reached.	
Truck and dock bumpers don't seal	Have the driver reposition the truck. If it is damaged and still not sealing, inform the Shipping Supervisor to put in a work order to have it fixed. Temporarily fix to prevent pests entering.	
Product has signs of spoilage, damage or contamination	Do not load onto the truck. Inform Supervisor and follow Hold Procedure SOP P3.2.1.	
Temperature of finished product is above 4°C	Do not load the truck. If below 10°C put product back in cooler B until 4°C has been reached. If above 10°C inform Shipping Supervisor and follow Hold Procedure P3.2.1.	
Food safety may have been compromised	Inform Supervisor. Follow Hold Procedure P3.2.1.	
If deviation is recurring	Inform Supervisor who will conduct a root cause analysis.	

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EXAMPLE 7

Shipping Record

XYZ Food Facility	Shipping Record	
	Written By: A. Smith	Code: RCD P2.2.1

Who: Designated Trained Shipping Employee
What: Record the date and your name in the space provided.
For each shipment, record all Bill of Lading #s for the load and complete the record according to SOP P2.2.1. Answer each question with either "Yes" or "No", or a # when recording temperatures. For all questions answered with a "No" record the deviation and corrective action.
When the procedure is complete, initial the bottom of the record for each Bill of Lading #. Start a new record for each day.

Name:	**Bill of Lading #**	**Bill of Lading #**	**Bill of Lading #**	**Bill of Lading #**	**Bill of Lading #**	**Bill of Lading #**
Date:	**Yes or No**	**Yes or No**	**Yes or No**	**Yes or No**	**Yes or No**	**Yes or No**
Is the vehicle refrigerated?						
Is the reefer set to the correct temperature? (Refrigerated ≤4°C, Frozen ≤–18°C)						
Is the inside of the truck visibly clean and has no; mould, rust, flaking paint, wood splinters, damaged floors, walls or ceilings, condensation, foul odours, or evidence of pests (e.g. flies, rodent droppings, carcasses)?						
Product and its packaging has no signs of spoilage, damage or contamination (e.g. odours, mould, rips, leakage, discolouration)?						
Product is at correct temperature (must be 4°C or less)?						
Product Temperature (taken 3 times per load)	°C °C °C	°C °C °C	°C °C °C	°C °C °C	°C °C °C	°C °C °C
Product and its packaging not damaged while loading?						
Products containing allergens separated from other products on the truck?						
Load contents matches Bill of Lading(s)?						
Deviations:						
Corrective Actions:						
Initials						

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EXAMPLE 8

Receiving & Shipping Training Procedure

XYZ Food Facility	Receiving & Shipping Training Procedure	
	Written By: Abigail Smith	Code: SOP T2

Who:
Food Safety Coordinator or trained designate will deliver the training to employees responsible for receiving and shipping duties

When:
- Prior to designated personnel performing receiving and/or shipping job duties
- Yearly refresher training
- When changes are made to the program
- As necessary if deviations are found

What:
1. Ensure all appropriate trainees are present by cross-referencing the Receiving and Shipping personnel staff list, Master Training Schedule and Human Resources, new hiring lists

Training for Receiving & Shipping activities will consist of hands-on/demonstration training and in-class training

2. Train in-class by presenting:
   - OMAFRA's *Advantage GMP* Training Kit – Module 2: Shipping, Receiving, Handling and Storage
   - Procedures from P2 – Receiving & Shipping
3. Demonstrate the following for the trainees:
   - How to properly inspect the truck for Receiving & Shipping to ensure it is clean, in good condition, at the correct temperature and is suitable to transport food.
   - How to properly take product temperatures for incoming and outgoing product
   - How to properly load and unload the truck to ensure the contents are not damaged and contaminated
   - How to properly complete records including recording deviations and corrective actions
   - How to properly segregate returned products and allergens
4. After in-class training and demonstrations are complete, have all trainees complete the RCD T2.2 Receiving & Shipping Training Assessment. Trainees must get at least 8 out of 10 to pass the Assessment and complete the training.
5. Upon completion of training, record your (trainer) name, your signature, the date and the training material presented on RCD T2.1 Receiving and Shipping Training Record. Have each trainee record their name and signature.

Deviations:	Corrective Actions:	Records:
Employee is absent from training	Train the employee before they start/return to work.	RCD T2.1 Receiving & Shipping Training Record
Employee did not pass the training assessment	Employee is re-trained on procedures relating to the questions that were not answered correctly	RCD T2.2 Receiving & Shipping Training Assessment

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EXAMPLE 9

Receiving & Shipping Training Record

XYZ Food Facility	Receiving and Shipping Training Record	
	Written By: Hugh White	Code: RCD T2.1

Date of Training Session: June 7, 2008

Trainer's Name: Jose Clark

Signature of Trainer: Jose Clark

Training materials presented:

- OMAFRA's *Advantage GMP* Training Kit – Module 2: Shipping, Receiving, Handling and Storage
- Receiving & Shipping procedures and records from P2
- Receiving & Shipping Training Assessment (RCD T2.2)

Name of Trainee (please print clearly)	Signature of Trainee
My signature verifies that I have received the training listed above and that I fully understand the training I received.	
Rachelle Jones	Rachelle Jones
John Lowe	John Lowe
Jeff Down	Jeff Down

All employees listed (and as indicated on the training schedule) must receive the training prior to starting Receiving & Shipping job duties. If an employee is not present for the training session they must be trained upon their return to work.

Deviations:	Corrective Actions:

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EXAMPLE 10

Receiving & Shipping Training Assessment

XYZ Food Facility	Receiving and Shipping Assessment	
	Written By: Abigail Smith	Code: RCD T2.2

Name: _____ Date: _____

1. Refrigerated product is to arrive at:
   A) <3°C
   B) >4°C
   C) ≤4°C

2. What colour label goes on allergens?
   A) Green
   B) Blue
   C) Yellow
   D) Orange

3. What allergens do we have in our facility?
   A) Dairy
   B) Soy
   C) Nuts
   D) Wheat

4. What should you do if product temperatures are too high?
   A) Load the truck anyway
   B) Dispose of the product immediately
   C) Put the product back in the cooler if the temperature is lower than 10°C

5. Chemicals should never arrive on the same truck as ingredients and food. TRUE or FALSE

6. Allergens can arrive on the same truck as non-allergenic food as long as they are physically separated TRUE or FALSE

7. Always ship the newest/freshest product first TRUE or FALSE

8. It's okay if trucks are a bit dirty because product will be in packaging when on the truck TRUE or FALSE

9. The approved supplier list is kept in the _____

10. How many product temperatures should you take when shipping? _____

Mark: /10 **Passed: Y – N** **Trainer:** _____

*A passing grade is 8/10

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EXAMPLE 11

Receiving & Shipping Verification Procedure

XYZ Food Facility	Receiving & Shipping Verification Procedure	
	Written By: Margaret Hassle	Code: SOP V2

Who: Food Safety Coordinator

When: Monthly

What:

Verification of Receiving and Shipping Records

1. Review the previous month's records (RCD P2.1.1, P2.1.2 & P2.2.1) since the last verification, to ensure that all the tasks were completed as scheduled.
   - Review the documentation to ensure it is complete:
     - Mistakes have been crossed through with a single stroke and that pencil and liquid paper have not been used
     - All deviations and corrective actions are recorded on the record and that the corrective actions were appropriate
     - Records are signed and dated by the designated employee
     - No blank spaces were left on the record, "N/A" was recorded if necessary
     - No evidence of falsified entries
     - If food safety may have been compromised, affected items were put on Hold and a Food Safety Assessment was conducted
     - If there were repeat deviations, a root cause analysis was conducted

Verification of Receiving & Shipping Procedures

2. Bring the procedure with you and meet with the designated employees
3. Observe the designated employees performing the tasks as written in the procedures (SOP P2.1.1, P2.1.2 & P2.2.1)
4. Upon completion of the verification of both Receiving & Shipping records and procedures, record all deviations and corrective actions before signing and dating the RCD V2 Receiving & Shipping Verification Record

Deviations:	**Corrective Actions:**	**Records:**
Records are incomplete	• Investigate why the record was not complete • Retrain the employee and record the training	RCD V2 Receiving & Shipping Verification Record
Employee not doing what is written in the procedure	• Retrain employee on the proper procedure and record the training • The Food Safety Coordinator may consider revising the procedure to reflect what personnel are doing if it will not compromise food safety	
If food safety may have been compromised	• Inform Area Supervisor. Follow Hold Procedure SOP P3.2.1.	
If deviation is recurring	• Perform a root cause analysis • If necessary, retrain employee, remove employee from these duties and/or begin the disciplinary action process • Record training	

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EXAMPLE 12

Receiving & Shipping Verification Record

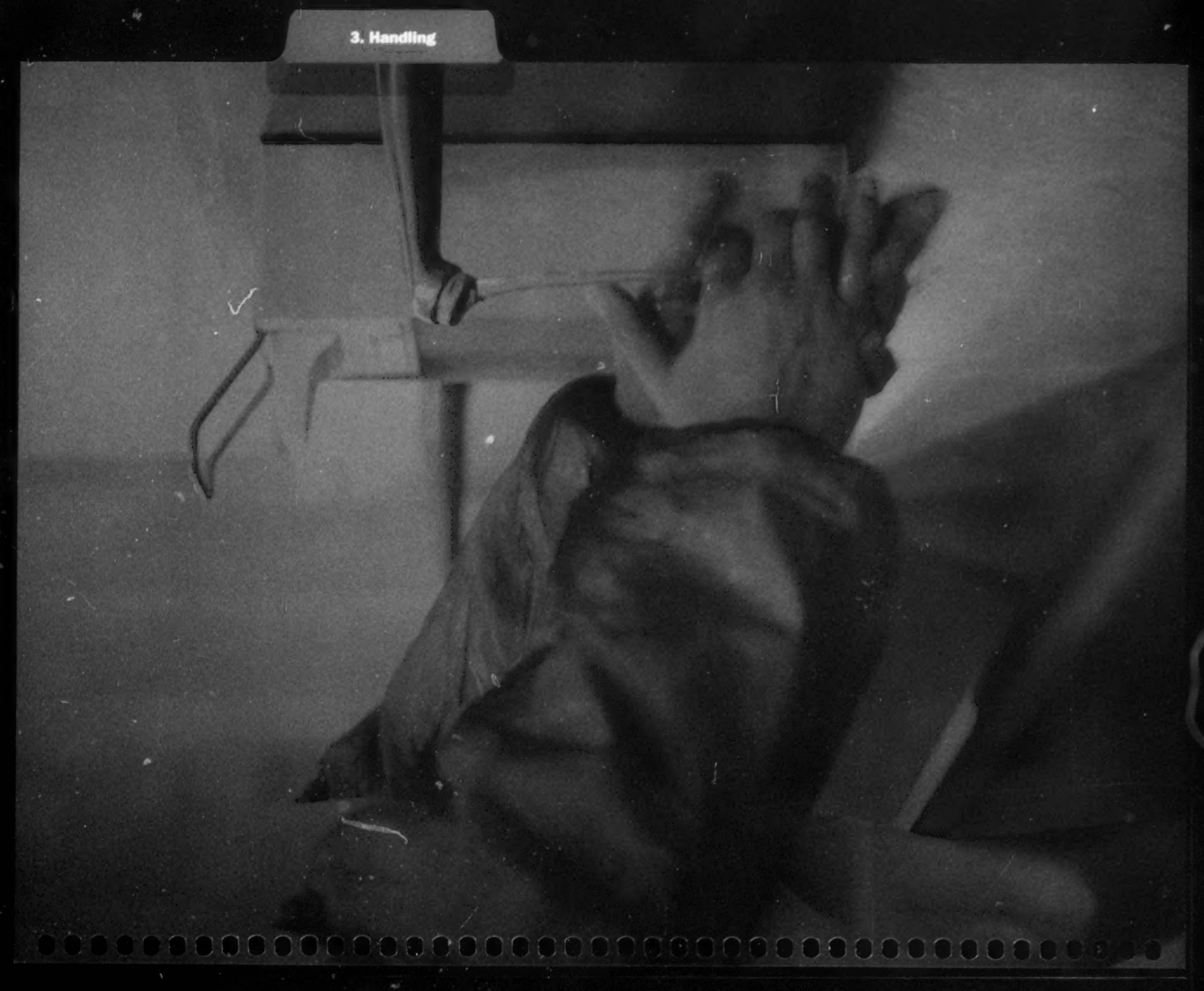
XYZ Food Facility	Receiving and Shipping Verification Record	
	Written By: Margaret Hassel	Code: RCD V2

Who: Food Safety Coordinator
When: Monthly
What: Observe the designated trained employee while he/she carries out Receiving & Shipping activities to ensure that they are following the procedures as written and that the corresponding records are being completed appropriately and are current.

A "✓" indicates that the criteria has been met
An "X" indicates that the criteria have not been met.
Record any deviation(s) and corrective action(s) on this record.

Date:	Name of Verifier (print):	Signature of Verifier:

Procedure	Procedures Followed ✓ X	Records Completed Correctly ✓ X	Deviation and Corrective Action
Receiving Procedure (Food & Packaging) SOP P2.1.1 RCD P2.1.1			
Receiving Procedure (Chemicals) SOP P2.1.2 RCD P2.1.1			
Approving Suppliers SOP P2.1.3 RCD P2.1.2			
Shipping Procedure SOP P2.2.1 RCD P2.2.1			



Handling

Why is it Important to Have a Handling Program?

A handling program is designed to ensure that all food, ingredients, processing aids and packaging materials are handled and stored in a manner that prevents damage or contamination. A sound handling program also ensures that chemicals, allergens, waste and defective product are handled and stored in a manner which prevents cross contamination with food, ingredients, processing aids and packaging materials.

Handling and storage within the facility will be specific for the operation and product being produced. Care needs to be taken with ingredients and product that need to be refrigerated or frozen to ensure they are at the appropriate temperatures.

If the facility has products which contain allergens, specific instructions for receiving, transporting through the facility, storing, dispensing and handling the allergens must be developed to ensure that non-allergen product is not contaminated.

Many types of chemicals are used in the operation of a food processing facility. Some chemicals are approved for use in a food facility while others are strictly chemicals that are used outside, for non-food contact surfaces or for maintenance purposes. Chemicals need to be fully controlled during; receiving, transport within the facility, storage, dispensing and use; to prevent cross-contamination.

Waste needs to be handled and stored properly so as not to contaminate food, ingredients, processing aids, packaging materials and food contact surfaces. Areas of the facility where waste is housed needs to be clearly identified, secured and kept in a sanitary manner.

Finished products, ingredients, processing aids and packaging materials deemed defective or suspected of being defective should be fully controlled. A handling program includes procedures to assess the disposition and steps to control defective and suspect food, ingredients, processing aids and packaging materials. The defective and suspect procedure developed in your handling program will be used throughout your entire food safety program.

P3 Handling

Handling & Storage P3.1

Written handling and storage policies, procedures and corresponding records are in use for all food, ingredients, processing aids and packaging materials. The policies include:

- Preventing cross-contamination and damage during storage, handling and movement through the facility
- Storing food, ingredients, processing aids and packaging material and their containers off the floor and away from the wall
- Storage rotation based on expiration date and/or shelf-life

The procedures include keeping a current inventory of all finished product.

"Handling" is a general term which describes transporting, processing or storing; food, ingredients, processing aids and packaging materials; within in the facility

Suggestions to Meet the Standard

Develop a handling policy

- Food, ingredients, processing aids and packaging material should be securely covered when stored or moved through the facility to prevent cross-contamination
- Different areas of the processing facility should be designated for the purpose of storing and handling dry, refrigerated or frozen items (see Example 1)
    - Food, ingredients, processing aids and packaging material should not be stored in processing areas. Only packaging material currently being used should be put in processing areas and removed before cleaning and sanitizing starts.
- Refrigerated or frozen food and ingredients should go directly to the designated refrigerator or freezer
- Humidity sensitive ingredients should go directly to the designated dry storage with humidity control
- Develop handling instructions for food, ingredients, processing aids and packaging materials that have fallen on the floor or have been otherwise contaminated
- Develop instructions for handling and storing products to be reworked
- Develop instructions for handling and storing allergens, see P3.3 Allergen Control for more information
- Food, ingredients, processing aids and packaging material should be on a skid, rack or piece of equipment (e.g. table, cart) to prevent it from touching the floor
- All skids, racks and equipment should be stored away from the wall to prevent the harbourage of pests and to enable inspection for contamination and damage. The inspection for pests will be covered under P6.1 Pest Control.
    - Distance from the wall should easily permit a person to sweep and visually inspect the entire length of the storage area

P3 Handling

Suggestions to Meet the Standard

- Ice and water should be stored in labelled, covered containers that are used solely for storing ice or water
- Ice and water storage containers should be cleaned and sanitized regularly (include containers in your P4 Sanitation program)
- Food, ingredient, processing aids and packaging material rotation should be first-in-first-out (FIFO) or used based on the expiration date or shelf-life if they apply

Develop a procedure and records to control inventory of all finished product. Inventory records will be used during mock recalls or in the event of an actual recall (see Example 2) (see P7.1 Recall for more information).

P3 Handling

Control of Defective & Suspect Items P3.2

Written procedures and corresponding records for handling and storage of defective and suspect items (food, ingredients, processing aids and packaging materials) are in use. The procedures include instructions for; identifying, controlling, storing and determining disposition of; defective and suspect items.

"Defective" refers to items that are damaged, compromised or out of specifications

"Suspect" refers to items that are questionable or potentially unsafe and require further testing or assessment (e.g. returned product, or food, ingredients, processing aids, and packaging materials suspected of being contaminated)

Suggestions to Meet the Standard

Develop a procedure for identifying defective and suspect food, ingredients, processing aids and packaging material (affected items). The procedure should ensure effected items are clearly identified and isolated immediately before their disposition is assessed (see Examples 3 & 4).

- The "Control of Defective & Suspect Items" procedure is often called a "Hold Procedure"
- A clearly visible label that is colour coded differently than product labels is effective for identification of affected items
- The affected items can be isolated by: signage, labels, caution tape or they can be marked and physically locked up
- Once the items are isolated, they should be controlled to prevent accidental re-use or re-shipment, this can be done by log records or electronically by bar coding technology
- Depending on the facility size and design it is useful to have a designated area for defective and suspect items. The designated areas which hold the affected items, should not cause cross-contamination.
- The Food Safety Coordinator or designate, should conduct an appropriate examination or evaluation to determine disposition, and if affected items should be re-used, re-shipped or disposed of
    - This examination or evaluation is often the Food Safety Assessment Procedure (see Example 5 & 6)
    - Based on the Food Safety Assessment the disposition of the affected items are determined (released to production, re-worked or disposed of)
    - Include instructions for releasing, reworking and disposing affected items (e.g. who is responsible, where to record results)

P3 Handling

Allergen Control P3.3

Written allergen control policies, procedures and corresponding records are in use, to ensure allergens are clearly identified and controlled. The policies and procedures include instructions to prevent cross-contamination through personnel, sanitation, handling, (transporting, processing and storing), rework and receiving & shipping. A list of all allergens and products containing allergens is developed and maintained.

Suggestions to Meet the Standard

List all allergens present in the facility and which food, ingredients, processing aids and finished products contain the allergens, to ensure they are fully controlled.

- CFIA recognized allergens are: eggs, fish and crustaceans, milk, peanuts, sesame seeds, shellfish, soy, sulphites, tree nuts (almonds, brazil nuts, cashews, hazelnuts, macadamia nuts, pecans, pine nuts, pistachios, walnuts), wheat and mustard
    - Refer to the *Food and Drugs Act* and the *Consumer Packaging and Labelling Act* at the time of your program development to get a full list of allergens
- Ensure you have a clear understanding of your ingredients, their sub-ingredients (allergens may be a component of ingredients used) and processing aids. You can get allergen information from product specification and ingredient labels.

Ensure you have a clear understanding of the allergen flow through your facility, where they are received, transported, stored, mixed, processed and packaged and the potential points of cross-contamination

- This may be accomplished by creating a facility schematic or blueprint with all allergen and non-allergen ingredients and product flow, personnel traffic patterns and rooms and utensils used to handle allergens
- Consider separating production of allergen-containing product by room or by line. If this is not possible, then consider separating the production of allergen-containing product by time, (e.g. produce allergen containing product at the end of the production day followed by a rigorous cleaning and sanitizing program).
- Allergen containing products should have designated processing and storage areas bins and utensils

The suggestions listed below can be combined with procedures and records developed in Personnel, Receiving & Shipping, Handling and Sanitation Programs, respectively. Allergen control measures are included here to emphasize their importance and the need for special consideration.

P3 Handling

Suggestions to Meet the Standard

Develop allergen control policies for all personnel (P1 Personnel) and specifically personnel who handle allergens, which include:

- Identification of uniforms for personnel who handle allergens directly. They are often assigned separate uniforms to clearly identify their job function. Employees can be identified by a different colour smock, helmet, sticker on the helmet, etc.
- Colour coded bins, utensils and equipment for handling allergens
- Traffic patterns for personnel to ensure allergens are not tracked accidentally into areas where non-allergen containing products are processed or stored

Develop receiving & shipping procedures (P2 Receiving & Shipping) to ensure allergens are controlled at receiving & shipping

- When receiving allergens thoroughly inspect the packaging to ensure it is not damaged which could lead to cross-contamination
- Colour coded labels can be placed on packaged allergens during receiving to ensure they are sent to their specific storage area
- In your procedure for approving suppliers and ingredients, include measures to ensure incoming items do not contain and have not come into contact with allergens (see P2.1 Receiving for more information about Approving Suppliers)
    - Include questions regarding allergen controls in your supplier food safety questionnaire or ensure that supplier's third party food safety audits require allergen controls

Develop handling policies (P3 Handling) to ensure allergens are controlled throughout the process and the facility

- Allergens should have a designated storage area or room. If allergens need to be stored in the same room, ensure they are not close to or above non-allergen containing product or other allergens.
- Product for re-work should be included in the allergen handling policy. Ensure that allergens to be reworked are only reworked to product containing the same allergen.
- Include instructions for transporting allergens throughout the facility, e.g. bins with lids, labels in process, specific pathways
- Include instructions for allergen clean up in case of spillage during transporting throughout the facility or in storage or processing areas

Develop rigorous sanitation and inspection procedures (P4 Sanitation) to ensure that allergens and their residues do not remain on production lines before non-allergen containing product is processed

- Equipment and utensils used to produce allergen-containing products, should be cleaned and sanitized in a separate area than equipment and utensils used to produce non-allergen products. Include this in P4.1 Cleaning & Sanitizing

P3 Handling

Chemical Control P3.4

Written chemical control policies are in use for all chemicals in the facility. The policies include:

- Receiving and handling of chemicals to prevent cross-contamination
- Ensuring chemicals for use in food processing, handling and storage areas are acceptable for use in a food facility and are stored separately from other chemicals
- Securely storing chemicals in a designated area
- Mixing and using chemicals according to the manufacturer's instructions

Chemicals that may impact food safety are listed on CFIA's Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products or has a letter of no objection from Health Canada.

Suggestions to Meet the Standard

Develop receiving instructions for chemicals. These can be combined with procedures developed under P2.1 Receiving. See Example 2 in P2 Receiving & Shipping.

- Chemicals are received in a separate location or at a separate time than food, ingredients, processing aids and packaging materials
- Chemicals are only received if they are on the facility's list of acceptable chemicals and are from an approved supplier
- A list of all suppliers and chemicals supplied to the facility should be available to the receiving personnel to cross reference at the time of receipt

Develop a policy for handling, storing and transporting chemicals throughout the facility (see Example 7)

- Chemical storage location should be separate from food, ingredients, processing aids and packaging materials and should be secure with controlled access. This can be accomplished by storing them in a separate room or a cabinet that can be locked.
- Chemicals that are permitted for use in food processing, handling and storage areas are stored separately from chemicals that are prohibited in food processing, handling and storage areas
- All chemicals should be mixed, dispensed and used according to the manufacturers instructions
    - Chemical concentrations should be checked and recorded. This can be done by using a product provided by the chemical supplier (test strips, reagents)
    - Chemical concentrations should be checked before the chemical solution is used
- Chemicals should be clearly labelled for their intended use
- Chemicals dispensed into smaller containers, should be clearly labelled with chemical name and concentration
- In addition to the chemical name it is beneficial to have a labelling system that is easily recognizable at a glance. Labelling should differentiate between chemicals permitted in processing areas and on food contact surfaces and those that are not, e.g. maintenance chemicals could be labelled red and chemicals used in a processing room could be labelled green

P3 Handling

Suggestions to Meet the Standard

- Include measures to ensure that chemicals used in food handling areas do not contaminate food, ingredients, processing aids, packaging materials or food contact surfaces. For example, chemicals used for sanitation or maintenance during production. Ideally all food, ingredients, processing aids and packaging materials are removed before chemicals are used.
- When transporting chemicals throughout the facility they should be labelled, in sealed containers and should follow specific pathways to storage areas

All operational, sanitation, pest control, maintenance and water treatment chemicals permitted in food processing, handling and storage areas should be acceptable for use in a food facility

- The CFIA Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products can be found at *www.inspection.gc.ca*
- Examples of common chemicals included on the acceptable list are:
    - Inks, glues and hand soap (operational), detergents, degreasers and sanitizers (sanitation), boiler chemicals, lubricants and hydraulic oil (maintenance), rodenticides, insecticides and bait stations (pest control), disinfectants, softeners and boiler chemicals (water treatment)
    - If steam comes in direct contact with food, boiler chemicals should be approved for food contact
- Examples of common chemicals NOT included on the acceptable list and should therefore not be allowed into processing areas are:
    - Outdoor salt, oils & lubricants for trucks, gasoline, oxygen, Freon, acetylene, propane, solvents and paint
    - These chemicals should be stored separately from the approved chemicals and locked with controlled access

Most of the Chemical Control instructions above are on-going rules for personnel to follow at all times when handling chemicals. These can be thought of as policies much like P1.1 Personnel Practices and P3.1 Handling & Storage and do not require a record. However, Chemical Control records should be developed for tasks that should be tracked or to prove your due diligence. When determining if a record is needed for your handling program ask yourself: "in future will I want to prove that this task or activity was completed or should information be collected for future use?" Chemical inventory records or chemical concentration records are examples of chemical control records but you may want to develop others.

P3 Handling

Waste Management P3.5

Written waste management policies are in use for identifying, handling, storing and removing waste.

"Inedible" is food and ingredients deemed unfit for human consumption during processing. Examples of inedible include ingredients and product that have been sorted out or that have fallen on the floor.

"Garbage" is waste other than inedible food and ingredients. Examples of garbage include discarded packaging material, and trash in the employee lunch room and bathroom.

Suggestions to Meet the Standard

Ensure you have a clear understanding of the location and flow of waste (garbage and inedible product) throughout the facility and potential points of cross-contamination

- This is often accomplished by creating a facility schematic or blueprint with all waste receptacle locations, their flow through the facility and storage locations
- Waste receptacles should be clearly identified, this can be accomplished by colour coding the bins or by a label. It is often beneficial to do both
- Waste receptacles should:
    - Be of sufficient size to handle the amount of waste produced and should be emptied every shift or more often to prevent overflow
    - Prevent cross-contamination. Choose waste receptacles employees do not have to touch to discard waste (e.g. bins that are foot-operated or do not have lids).
    - Be cleaned and sanitized at minimum once every production day or more frequently as required, e.g. if there is multiple shifts or if they are visibly dirty. Receptacles should be included as equipment in the sanitation schedule under P4.1 Cleaning & Sanitizing.

Develop a policy for handling and storing waste in a manner that prevents cross-contamination (see Example 8)

- Waste receptacles should be emptied during breaks or at the end of processing
- Measures should be taken to protect product while waste is being removed, e.g. cover product, remove product from the area, keep waste away from product and food contact surfaces
- The route used to transport waste should be carefully considered to prevent cross-contamination
- Designated utensils should be used for handling waste, these utensils are often the same colour as the waste receptacles (see P1.3 Utensils for more information)
- Include instructions for when to change uniform and wash hands

P3 Handling

Suggestions to Meet the Standard

- Where daily waste collection is not provided, waste should be stored separately from all other processing, handling and storage areas:
    - Waste storage areas should be an appropriate size to handle the amount of waste produced
    - Indoor waste storage areas should be equipped and maintained to prevent any odours or fumes from exiting the waste storage area. Ventilation will be addressed in standard P9.5 Temperature Control & Ventilation.
    - Outdoor waste storage areas should be secure and located to avoid attracting pests and prevent cross-contamination
    - Waste stored outside should be stored in sealed, clearly identified containers that are designed for effective cleaning. Containers should be stored away from the walls of the facility
    - It is recommended that waste be removed from the facility 2x/week, or as often as necessary to maintain a sanitary condition

T3 Handling

Handling Training T3

Written procedures and corresponding records are in use for training on the handling program. The procedures identify:

- Personnel who require training
- The trainer
- Training material used
- Frequency of training
- Assessment method to confirm the training is understood

Training is provided prior to starting handling job duties, and whenever changes are made to the handling program.

Refresher training is provided at minimum once per year.

Suggestions to Meet the Standard

Develop a training procedure (see Example 9)

- Include instructions to ensure all the appropriate personnel are present for training (e.g. cross-reference training list, training schedule and up-to-date employee lists)
- Training for the handling program should address all standards within the section and will involve the majority of the facility personnel
- Materials that can be used to support training of the handling program include:
    - Procedures developed in P3.1 – P3.5 Handling
    - The Handling and Storage portion of OMAFRA's *Advantage GMP* Training Kit – Module 2: Shipping, Receiving, Handling & Storage
    - Hands on demonstration and practice
    - Videos and other visual aids

Develop corresponding records for the training material presented (see Example 10)

- Training records list who is in attendance, the date the training took place, the topic, the material used and the name and signature of the trainer
- The training records have space for employees to initial or sign to indicate they received the training

Develop a method to assess and prove employees who were trained understood the training material

- For example a written or verbal test, observe the employee performing the task, or job shadowing for a probation period, etc. (see Example 11)

T3 Handling

Suggestions to Meet the Standard

Develop a training schedule

- The training schedule should include the employees (and the alternate backup) designated to conduct handling activities, it is also helpful to include the employees positions
- The training schedule is predetermined and indicates who needs to be trained and how often refresher training will occur
    - How often you have refresher training depends on your commodity, employee turnover rate and/or season of production, e.g. once per year, once per season, or every six months
- It may be easier to have one schedule for all 9 training standards (see Example 9 in P1 Personnel)

Remember to include deviations and corrective actions in training procedures (e.g. documenting employees absent from training and/or reassessing training materials if training is not effective)

All 9 GMP sections require training procedures and records be developed and used. You may consider combining training procedures and records for some or all 9 GMP sections. If training procedures are combined, be sure to include details from all sections in the combined procedure (e.g. materials used to train each section, detailed schedule).

V3 Handling

Handling Verification V3

Written procedures and corresponding records are in use for handling verification, which confirms, at pre-determined intervals, that:

- Handling activities are being performed as written
- Records are completed properly

Suggestions to Meet the Standard

Develop verification procedures

- To verify the handling program the most common method is to observe the task being performed and record whether the task is performed as written (see Example 12)
    - Other verification methods include:
    - Interviewing personnel regarding the handling procedures and corrective actions for which they are responsible
    - The verifier performs the activities written in the procedures and compares the findings to those of the designated employee. (NOTE: this method may only be carried out if the verifier and the designated employee perform the activities at the same time or within a minimal period of time from one another, so that the conditions of the activities are similar.)
- To verify that handling records are being properly completed, all the records, since last verification, should be reviewed. If no deviations are found, the number of records being verified can be decreased. Verification of the records is done to ensure that:
    - Mistakes have been crossed through with a single line and initialled by the designated employee and that liquid paper has not been used
    - Documents have been completed in permanent ink (no pencil)
    - All records are signed and dated by the designated employee
    - No blank spaces have been left on the record, if necessary "N/A" was recorded
    - The activities have been carried out in the appropriate frequency
    - There is no evidence of falsified entries
    - All deviations and corrective actions are documented and are suitable
    - If food safety may have been compromised, effected items were put on Hold and a Food Safety Assessment was conducted
    - If a deviation was recurring, a root cause analysis was conducted

T3 Handling

Suggestions to Meet the Standard

Develop a verification schedule for handling based on the risk of the activity being performed

- If ingredients, packaging or chemicals are found damaged in the storage area, this may indicate that verification of storage and transportation throughout the facility should be increased
- If there is a high employee turnover rate in the facility, it might be necessary to increase the frequency of the verification to ensure that the employee responsible for the handling activities are performing them according to the written procedures
- Generally, if the activity occurs daily then the verification would occur weekly, if the activity occurs weekly then the verification would occur monthly, and so on

Develop corresponding records for handling verification procedures, remember to include corrective actions in all procedures and records (see Example 13)

- A separate verification record can be created from the monitoring record or a column or space right on the monitoring record can be created for the verifier to record findings and to date and sign. This can only be done for Handling procedures which have a record. A verification record will have to be created for verifying all handling policies which do not have a record.
- All policies, procedures and records that relate to the handling program should be listed on the verification record

EXAMPLE 1

Handling & Storage Policy

(for a processing facility making a variety of salads containing fruits, vegetables and nuts)

XYZ Food Facility	Handling & Storage Policy for Food, Ingredients, Processing Aids and Packaging Materials	
	Written By: A. Smith	Code: SOP P3.1.1

Who: Designated trained processing or shipping personnel **When:** On-going

What:

Transporting Through the Facility

- Take food, ingredients, processing aids and packaging materials directly from the dock immediately after receiving tasks are complete (do not allow food, ingredients, processing aids and packaging materials to sit on the dock for longer than 20 minutes) and do not leave them anywhere but in their designated storage area
- Do not damage food, ingredients, processing aids or packaging materials while transporting them (e.g. be careful not to hit walls, door frames or other skids)
- Transport loads to processing rooms only if needed within the next two hours (e.g. don't store anything in processing)
- Cover all open food, ingredients, processing aids and packaging material when transporting them throughout the facility so they are not exposed
- Don't move allergens through rooms where non-allergens products are being processed or are exposed
- Cover all allergen containing food or ingredients when transporting them through the facility
- After handling allergen containing food or ingredients, and before handling non-allergens, wash your hands and change your smock

Storage

- Store items requiring refrigeration (dressing, vegetables), in Cooler A
- Store items requiring freezing (fruit), in the Freezer
- Store packaging materials and dry ingredients (nuts, spices), in the Dry Room
  - Nuts are an allergen and will be marked with an orange label at receiving. Store nuts in the designated allergen area in the Dry Room
- Store finished product in Cooler B. Store finished product containing allergens (nut salad) in the designated area in Cooler B (Orange area marked "Allergens"). Complete the Inventory record when adding/removing product.
- Label returned product with a yellow "Hold" label with the date and store it in the marked area in Cooler A. Follow the Hold Procedure SOP P3.2.1 for all returned product or any food, ingredients, processing aids or packaging materials that are found to be defective or suspected of being contaminated
- Cover food, ingredients, processing aids and packaging materials during storage. If the food or ingredient does not have a cover, cut a strip of clean, food contact plastic from the roll in the processing room and use it as a cover. Discard the plastic when no longer needed, do not reuse pieces of plastic.
- Do not store containers of food, ingredients, processing aids or packaging materials directly on the floor, always store them on a skid
- Place skids of food, ingredients, processing aids and packaging materials at least 30 cm/1 ft away from the wall
- When adding items to storage areas, re-arrange them so that items with the earliest expiration date are at the front and will be used before items with later expiration dates (oldest used first). This is called FIFO or first-in, first-out.
- When removing items from the storage areas for use in production, be sure that the expiration date hasn't passed
- Do not use dirty or broken totes, bins or skids. Remove all dirty or broken skids to the repair area.
- Never sit or stand on food, ingredients, processing aids, or packaging materials even if they are still packaged
- If stored items must be stacked, do not stack them higher than two skids high to prevent crushing
- Do not place any chemicals, utensils, equipment or personal belongings on any food, ingredients, processing aids or packaging materials (e.g. do not use boxes of ingredients or packaging as a shelf or a seat)

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EXAMPLE 1 (continued)

Handling & Storage Policy

(for a processing facility making a variety of salads containing fruits, vegetables and nuts)

XYZ Food Facility	Handling & Storage Policy for Food, Ingredients, Processing Aids and Packaging Materials	
	Written By: A. Smith	Code: SOP P3.1.1

During Processing

- Do not leave food, ingredients, processing aids or packaging materials in processing areas unless it is scheduled for use within the next two hours
- If any food falls on floor, dispose of it in the inedible bins (red) and wash your hands
- Do not place packaging materials of any kind on food contact surfaces. Only place packaging materials on the "Boxing Table".
- Dispose packaging materials that have fallen on the floor and wash your hands
- Label finished product containing allergens (nuts) with an Orange allergen label before removing from production area
- Remove finished product from the processing room immediately after a skid is complete, at the start of breaks and at the end of the day, e.g. do not allow finished product to remain in the processing room longer than necessary
- Do not take finished product directly from processing to shipping. Finished product must go into Cooler B to cool to the required temperature before being shipped.
- When removing finished product from Cooler B to be shipped take the oldest product first
- When adding or removing finished product from Cooler B, follow SOP/RCD P3.1.1 Finished Product Inventory Procedure and Record
- Always use the correct bins, utensils and equipment for the material being handled – they are all either labelled or colour coded: Red for inedible
  White for edible
  Grey for garbage
  Orange for Allergens or Allergen containing products (nut salad)
  Yellow for Ice
- Do not place white/edible bins, orange/allergen bins or yellow/ice bins directly on the floor, place them on stainless steel castors
- Products containing allergens (nuts) are scheduled to be processed last, at the end of the production day. Do not remove any nuts from their designated storage area until production of all non-allergen products is complete and they are stored in Cooler B.

If you are unable to follow any part of this policy (e.g. no labels available, not enough room to store items 30 cm from the wall) immediately notify the Supervisor to resolve the problem

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EXAMPLE 2

Finished Product Inventory Procedure and Record (combined)

XYZ Food Facility	Finished Product Inventory Procedure and Record	
	Written By: Frank Carlisle	Code: SOP/RCD P3.1.2

Who: Designated trained processing and shipping personnel **When:** On-going

What: Start a new record for each type of finished product. Start a new line/entry for each lot #. Keep the record on the clip board in Cooler B. Each time an item is placed in the cooler B, enter it in the record by completing Lot Code, Date Entered, Amount Entered, and Amount Remaining. When removing items from the Cooler B, under the appropriate Lot Code record the Date Removed, the Amount Removed and the Amount Remaining in Cooler B. Initial the record after each entry.

Deviations:	**Corrective Actions:**
No room in Cooler B for all finished product	Store in Cooler A, in a way that they are separate from ingredients, inform the Food Safety Coordinator to oversee
Food safety may have been compromised	Inform Supervisor. Follow Hold Procedure SOP P3.2.1.
If deviation is recurring	Inform Supervisor who will ensure a root cause analysis is performed

Finished Product: Nut Salad

Lot Code	Date Entered (dd/mm/yy)	Amount Entered (cases	Date Removed (dd/mm/yy)	Amount Removed (cases)	Amount Remaining (cases)	Initials
241	05/01/09	500	–	–	500	AJ
–	–	–	08/01/09	75	425	TK
–	–	–	10/01/09	350	75	TK
–	–	–	11/01/09	75	0	AJ
361	07/01/09	350	–	–	350	BH
–	–	–	11/01/09	65	285	TK
–	–	–	12/01/09	200	85	BH
–	–	–	15/01/09	85	0	AJ

Deviations:	**Corrective Actions:**

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EXAMPLE 3

Defective & Suspect Items Procedure

XYZ Food Facility	Hold Procedure	
	Written By: A. Smith	Code: SOP P3.2.1

Who:

All Personnel

When:

Upon receipt of all returned loads whenever food, ingredients, processing aids or packaging materials are defective or are suspected of being contaminated

What:

1. Immediately identify all of the potentially affected items by placing a yellow "Hold" label on all sides, to clearly identify and segregate them (labels are kept in the shipping and processing area). Date and initial the label.
2. If Hold items need refrigeration store them in the area marked "Hold" in Cooler A
3. Store dry (packaging, spices, nuts) or frozen (fruit) held items in either dry storage or the freezer accordingly and ensure they are clearly labelled and segregated from other items
4. Remember to separate items with allergens from all other items
5. Complete the Hold Record RCD 3.2.1, and date and initial. Leave it on the clipboard with the items on hold
6. Notify the FS Coordinator that items have been put on hold
7. Do not move items or remove the labels from items on hold until authorized by the FS Coordinator

Deviations:	Corrective Actions:	Records:
Not enough room in storage to separate Hold items from all other items	Immediately inform Food Safety Coordinator and Shipping Supervisor who will determine if anything can be removed from storage or if another suitable storage area is available	RCD P3.2.1 Hold Record
If deviation is recurring (Note: not the deviation that put the items on hold in the first place but rather repeat deviations found when following the Hold Procedure)	Inform Supervisor who will ensure a root cause analysis is performed	

EXAMPLE 4

Defective & Suspect Items Record

XYZ Food Facility	Hold Record	
	Written By: A. Smith	Code: RCD P3.2.1

Who: All Personnel

What: Record the item(s) being put on hold and your name. Record the date, the amount being put on hold and the reason the items are being held. For all returned product record the customer and their complaint. Initial the bottom of the record. Record any deviations and corrective actions. **Notify the Food Safety Coordinator immediately** and leave the complete Hold Record with the held product.

Item and Lot Code:	Fruit Salad 965
Name: (Personnel putting items on Hold)	Ben Howard
Date: (dd/mm/yyyy)	06/01/2009
Amount: (# of buckets, skids, boxes, etc.)	10 boxes
Reason for Items being put on Hold:	Returned Product
Customer and their Complaint: (if returned)	Frank's Food Service Product arrived above 4°C and had off odours
Notified Food Safety Coordinator? Yes or No	Yes
Deviations: (did anything go wrong while you were following the Hold Procedure?)	Hold stickers were on all 10 boxes of returned product. I moved the first 5 boxes to the designated area in Cooler A and returned to get the remaining 5 boxes and they had been moved.
Corrective Actions: (how did you fix the problem?)	I immediately informed the Shipping Supervisor who stopped all shipments until all shipping staff were questioned and the missing boxes found. The personnel who moved the held boxes was immediately retrained by the Supervisor, on the Receiving and Hold procedures.
Initials:	BH

EXAMPLE 5

Food Safety Assessment Procedure

XYZ Food Facility	Food Safety Assessment	
	Written By: Frank Peabody	Code: SOP P3.2.2

Who:

Food Safety Coordinator

When:

When items are put on Hold
- Upon receipt of all returned loads
- Whenever food, ingredients, processing aids or packaging are defective or are suspected of being contaminated (food safety is compromised)

What:

1. When notified that items have been put on hold, check the Hold Record against the items on hold to make sure that everything put on Hold is still present
2. Conduct a Food Safety Assessment as instructed on RCD P3.2.2, to determine the disposition of the held items and what action will be taken (disposal, rework, ship)
3. Conduct a root cause analysis
4. If necessary, (e.g. while waiting for test results) store held items needing refrigeration in the marked Hold Area located in Cooler A. Move dry (packaging, spices, nuts) or frozen (fruit) hold items to either dry storage or the freezer accordingly and ensure they are clearly labelled and segregated from other items. Remember to separate items with allergens from all other items.
5. Oversee the action to be taken including confirming that the action is complete
6. Attach the record (RCD P3.2.2) to the corresponding Hold Record RCD P3.2.1. File the documents in the Food Safety Assessment binder.

Deviations:	Corrective Actions:	Records:
Items/quantity listed on Hold Record do not match items on hold.	Immediately inform Shipping Supervisor to stop shipments until the missing products have been found. Retrain responsible personnel on Hold procedure.	RCD P3.2.2 Food Safety Assessment Record
If deviation is recurring (Note: not the deviation that put the items on hold in the first place but rather repeat deviations found when following the Food Safety Assessment Procedure)	Perform a root cause analysis	

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EXAMPLE 6

Food Safety Assessment Record

XYZ Food Facility	Food Safety Assessment Record	
	Written By: A. Smith	Code: RCD P3.2.2

Who: Food Safety Coordinator

What: Record the item(s) on hold. Record the Date, and the food safety issue. When the procedure/record is complete, initial the bottom of the record. Record any deviations and corrective actions.

Item and Lot Code:	Fruit Salad 965
Date: (dd/mm/yyyy)	06/01/2009
Identity and quantity of Hold items match those listed on Hold Record RCD 3.2.1? Circle Yes or No	(Yes) No
Food Safety Issue: (Reason for Items being put on Hold)	Returned Product - Product arrived to customer above 4 C and had off odours
Food Safety Assessment	
Perform testing to determine product disposition. Depending on the reason put on hold, testing might include: visual inspection, microbiological testing, organoleptic inspection. Describe the tests performed:	Organoleptic: No off odours or colours were detected. The product temperature was 8 C at receiving. Micro testing is not feasible as it will take too long to get results.
Q1 Do tests demonstrate that product is satisfactory? **Yes or No** If yes, release product back to production If no, continue to Q2	No (product temperature too high)
Q2 Could product be reworked to a satisfactory disposition e.g. re-cooking, trimming, re-packaging? **Yes or No** If yes, release product and oversee rework If no, oversee disposal of product	No
Action Taken:	Disposed
Date Action Complete:	Jan. 7/09
Deviations: (Did anything go wrong while you were following the Food Safety Assessment Procedure?)	Product was to be removed from all packaging and marked with red dye. While overseeing disposal I noticed that some product was not removed from it's packaging.
Corrective Actions: (how did you fix the problem?)	All product was removed from packaging and marked with red dye. Personnel were given disciplinary action.

Root Cause Analysis	
Why did this food safety issue occur?	Checked shipping record for this load—the product arrived too warm because it was not 4 C or less when it was shipped
Why?	Shipping personnel did not follow Shipping SOP 2.2.1 (Finished product temperatures, must be below 4 C)
Why?	When interviewed, shipping personnel explained that sometimes production can't keep up with shipments and Cooler B is empty so they take finished product directly from production to the dock even if it's too warm.
Why?	Shipping is under pressure to get shipments out quickly. They have a goal of 30 min. for trucks to be loaded.
Why?	Management was not aware of the food safety implications
Action taken to correct the root problem:	1) Educated Management on food safety issues including increased returns 2) Retrained shipping personnel, had Management open training to emphasize importance of food safety 3) Management, Production and Shipping met to work out production schedule
Initials:	JC

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EXAMPLE 7

Chemical Control Policy

XYZ Food Facility	Chemical Control Policy	
	Written By: A. Smith	Code: SOP P3.4.1

Who: Designated trained chemical handlers **When:** Ongoing

What:

Transporting Through the Facility

- Take chemicals directly from the dock immediately after receiving tasks are complete and do not leave them anywhere but in their designated storage area
- Chemicals with a purple label (non-food area chemicals) are not allowed in any part of the facility except the maintenance shop. Do not transport non-food area chemicals through the facility. Call maintenance to come and pick them up from the dock and they will transport them outside the facility to the Maintenance Shop.
- Transport food area chemicals (chemicals with green label – hand soap, maintenance grease, sanitizer, detergent and boiler chemicals), through the facility in sealed containers
- Do not damage chemicals while transporting them through the facility (e.g. be careful not to hit walls, doorframes or other skids)

Storage

- Store chemicals for use in food in the locked chemical cabinet
- Keep the chemical cabinet locked. Only trained, designated employees have the combination, do not give it to anyone unless authorized by a Supervisor.
- Store chemicals in sealed containers
- Do not store chemicals anywhere but in the chemical cabinet except for hand soap and spray sanitizer of which one bottle's worth of each can be stored in the processing room, cooler, etc. in labelled soap dispensers and labelled spray bottles respectively
- When adding chemicals to chemical cabinet, rearrange them so that older items are at the front and will be used before newer items (oldest used first)
- When removing chemicals from the chemical cabinet, be sure to take the oldest chemicals first

Dilution

- If the chemical must be diluted or if a smaller container is needed, put a green label on the empty container (for chemicals for use in food areas) and include the name of the chemical, and the concentration
- Only use clean containers or containers previously used for the same chemical
- The following chemicals MUST be diluted: SuperSanitizer and Fat-B-Gone Drain Cleaner. To dilute, follow the instructions for the chemical you are diluting, located in the chemical cabinet.
- The concentrations of all diluted chemicals must be checked right after dilution before sanitation starts each day. To check chemical concentrations, follow the instructions located in the chemical cabinet.
- Clean up any spills promptly

During Processing

- If chemicals must be used in the same room as food, ingredients, processing aids or packaging materials, take special care not to get the chemical anywhere near them:
  - Do not carry chemical near or above food, ingredients processing aids or packaging materials
  - Do not spray chemicals in the direction of food, ingredients, processing aids or packaging materials
  - When using maintenance or sanitation chemicals (e.g. grease, foamer), protect food, ingredients, processing aids and packaging materials by removing as much of them as possible, and fully cover remaining food, ingredients, processing aids and packaging materials with food grade plastic

Deviations:	Corrective Actions:
Not all chemicals will fit in the chemical cabinet	Additional chemicals can be stored in the closet in the shipping area. The closet should be locked, marked and chemicals removed and put in chemical cabinet when space is available.
Chemical found with no label	Discard chemical following proper chemical disposal procedure. Inform Receiving Supervisor and Food Safety Coordinator to retrain the personnel responsible for labelling chemicals.
Food safety may have been compromised	Inform Supervisor. Follow Hold Procedure SOP P3.2.1.
If deviation is recurring	Inform Supervisor who will ensure a root cause analysis is performed

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EXAMPLE 8

Waste Management Policy

XYZ Food Facility	Garbage and Inedible Products Policy	
	Written By: J. Orback	Code: SOP P3.5.1

Who:

All Production Personnel (colour-coding and handling, emptying waste bins)
Shipping Supervisor (monitoring outside dumpster and compost)

When:

Colour-coding and handling – ongoing
Emptying waste bins – after every shift or during breaks if bins are 2/3 + full
Monitoring outside dumpster and compost – daily at the beginning of production shift

Definitions:
Garbage is waste other than inedible food, ingredients and processing aids. Examples of garbage include discarded packaging, and trash in the employee lunch room and bathroom. Inedible product refers to food, ingredients and processing aids deemed unfit for human consumption during processing. Examples of inedible product include ingredients and product that have been sorted out or that have fallen on the floor.

What:

Colour-coding, Handling and Emptying of Waste Bins

Grey bins are for Garbage

- Place all garbage that falls on the floor in a grey bin, then thoroughly wash your hands and get new gloves
- Except to empty, do not move grey bins, they are to remain in their designated spots (corners of the processing room)
- Do not put grey bins on castors, castors are for white and orange bins only
- Empty bins at the end of each day by taking them outside by the shortest route possible (from shipping go through the shipping man-door, from lunch and welfare areas go through the employee entrance, from production go through the shipping man-door). Tie the bag off and place it in the dumpster. Make sure the lid of the dumpster is securely closed after. Place the empty grey bin in the wash-up area to be washed during regular, evening sanitation activities.

Red bins are for Inedible food

- Only use red squeegees and shovels labelled "inedible" to scrape inedible product from the floors and place it in red bins
- Only store red/inedible utensils on hooks labelled "inedible"
- Do not put red bins on castors, castors are for white and orange bins only
- Red bins can be moved to a more convenient spot but must always remain on the floor
- Empty bins at the end of each day by taking them outside through the shipping man-door, to dump them in the compost container outside. Make sure the lid of the compost container is securely closed after. Place empty red bins and red utensils in the wash-up area to be washed during regular sanitation activities.

Don't allow bins to overflow. If bins must be emptied during production, take bins out of production by the shortest route possible, before emptying. Tie off bags from grey bins. Place grey waste in the dumpster and red waste in the compost container. Make sure the lid of the dumpster and composter is securely closed after. Thoroughly wash and sanitize (see SOP 4.1.14) the empty bins in the wash-up area before putting new bags in grey bins and putting them back in their designated area of the plant. Thoroughly wash hands and change smocks and gloves before re-entering processing area.

Monitoring Outside Dumpster and Compost

Shipping Supervisor checks at the beginning of every production day that the dumpster and composter are not overflowing. If they are 2/3 full or more, contact the waste removal company and ensure that waste is picked up.

If you are unable to follow any part of this policy (e.g. dumpster lid won't close) immediately notify the Supervisor to resolve the problem

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EXAMPLE 9

Handling Training Procedure

XYZ Food Facility	Handling Training Procedure	
	Written By: Abigail Smith	Code: SOP T3

Who:
Food Safety Coordinator or trained designate will deliver training to employees who will be responsible for handling activities

When:
- Prior to designated handling personnel performing handling job duties
- Yearly refresher training
- When changes are made to the handling program
- As necessary if deviations are found

What:
1. Ensure all appropriate trainees are present by cross-referencing the personnel staff list, Master Training Schedule and Human Resources, new hiring lists

Handling training will consist of hands-on demonstrations and in class presentations

2. Train in-class by presenting:
   - The handling and storage portion of OMAFRA's *Advantage GMP* Training Kit – Module 2: Shipping, Receiving, Handling & Storage
   - Policies, procedures and records from P3 Handling
3. Demonstrate the following for the trainees:
   - How and where to properly store Chemicals, Allergens and Waste
   - How to properly identify and contain suspect product
   - Proper stacking techniques in the cooler and dry storage areas
4. After in-class training and demonstrations are complete, have all trainees complete the RCD T3.2 Handling Training Assessment. Trainees must get at least 8 out of 10 to pass the Assessment and complete the training.
5. Upon completion of training, record your (trainer) name, your signature, the date and the training material presented on RCD T3.1 Handling Training Record. Have each trainee record their name and signature.

Deviations:	Corrective Actions:	Records:
Employee is absent from training	Train the employee before they start/return to work	RCD T3.1 Handling Training Record
Employee did not pass the training assessment	Employee is re-trained and a hands-on training session is conducted	RCD T3.2 Handling Training Assessment

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EXAMPLE 10
Handling Training Record

XYZ Food Facility	Handling Training Record	
	Written By: Abigail Smith	Code: RCD T3.1

Date of Training Session: Aug 13, 2008

Trainer's Name: Tammy Randall

Signature of Trainer: Tammy Randall

Training materials presented:
- The handling and storage portion of OMAFRA's *Advantage GMP* Training Kit – Module 2: Shipping, Receiving, Handling and Storage
- Handling procedures and records from P3
- Handling Training Assessment (RCD T3.2)

Name of Trainee (please print clearly)	Signature of Trainee
My signature verifies that I have received the training listed above and that I fully understand the training I received.	
Rachelle Jones	Rachelle Jones
John Lowe	John Lowe
Henry Tisdale	Henry Tisdale

All employees listed (and as indicated on the Training Schedule) must receive the training prior to starting handling job duties. If an employee is not present for the training session they must be trained upon their return to work.

Deviations:	Corrective Actions:

EXAMPLE 11

Handling Training Assessment

XYZ Food Facility	Handling Training Assessment	
	Written By: Abigail Smith	Code: RCD T3.2

Name:_____ Date:_____

Circle the correct answer

1. Finished products are stored in:
   A) Cooler B
   B) Cooler A
   C) The shipping dock

2. Allergens that we have in the plant are:
   A) Nuts
   B) Eggs
   C) Soy

3. Allergens are never stacked above or touching non-allergen product
   TRUE or FALSE

4. Chemicals that are not permitted in food processing areas are labelled:
   A) Green
   B) Purple
   C) Yellow

5. Grey garbage containers can be put on castors
   TRUE or FALSE

6. Trash in the washroom is considered "Inedible"
   TRUE or FALSE

7. It's okay to store ingredients I the processing area as long as they'll be used within the next 24 hours
   TRUE or FALSE

8. When taking ingredients out of storage, you should take the newest/freshest first.
   TRUE or FALSE

9. You only have to complete the Finished Product Inventory when you remove product from storage, not when you add product
   TRUE or FALSE

10. If you suspect any food, ingredients, processing aids or packaging materials of being contaminated, what should you do first?
    A) Notify the Food Safety Coordinator
    B) Put the items on hold
    C) Continue processing duties

Mark: /10 **Passed: Y – N** **Trainer:** _____

*A passing grade is 8/10

EXAMPLE 12

Handling Verification Procedure

XYZ Food Facility	Handling Verification Procedure	
	Written By: Bob Love	Code: SOP V3.1

Who: Food Safety Coordinator **When:** Monthly

What:

Verification of Handling Records:

1. Review the previous month's records, since the last verification, to ensure that all the tasks were completed as scheduled
   - Review the documentation to ensure it is complete:
     - Mistakes have been crossed through with a single stroke and that pencil and liquid paper have not been used
     - All deviations and corrective actions are recorded on the record and corrective actions were appropriate
     - Records are signed and dated by the designated employee
     - No blank spaces were left on the record, "N/A" was recorded if necessary
     - No evidence of falsified entries
     - If food safety may have been compromised, affected items were put on Hold and a Food Safety Assessment was conducted
     - If there were repeat deviations, a root cause analysis was conducted

Verification of Handling Policies and Procedures:

2. Bring the policies and procedures with you and meet with the designated employees
3. Observe the designated employees performing the tasks as written in the policies and procedures from P3
4. Upon completion of the verification of Handling records, policies and procedures; record all deviations and corrective actions before signing and dating the RCD V3.1 Handling Verification Record

Deviations:	Corrective Actions:	Records:
Records are incomplete	• Investigate why the record was not complete • Retrain the employee and record the training	RCD V3.1 Handling Verification Record
Employee not doing what is written in the policy or procedure	• Retrain employee on the proper policy or procedure and record the training • The Food Safety Coordinator may consider revising the policy or procedure to reflect what personnel are doing if it will not compromise food safety	
If food safety may have been compromised	• Inform Area Supervisor. Follow Hold Procedure SOP P3.2.1.	
If deviation is recurring	• Perform a root cause analysis • If necessary, retrain employee, remove employee from these duties and/or begin the disciplinary action process • Record training	

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EXAMPLE 13
Handling Verification Record

XYZ Food Facility	Handling Verification Record	
	Written By: Abigail Smith	Code: RCD V3

Who: Food Safety Coordinator
When: Monthly
What: Observe the designated trained employee while he/she carries out handling activities to ensure that they are following the handling policies or procedures as written and that the corresponding records are being completed appropriately.

A "✓" indicates that the criteria has been met
An "X" indicates that the criteria have not been met.
Record any deviation(s) and corrective action(s) on this record.

Date:	Name of Verifier (print):	Signature of Verifier:

Procedure	Procedures Followed ✓ X	Records Completed Correctly ✓ X	Deviations	Corrective Actions
SOP P3.1.1 Handling & Storage Policy for Food, Ingredients, Processing Aids and Packaging Material		N/A		
SOP/RCD P3.1.2 Finished Product Inventory Procedure and Record				
SOP P3.2.1 Hold Procedure RCD P3.2.1 Hold Record				
SOP P3.2.2 Food Safety Assessment Procedure RCD P3.2.2 Food Safety Assessment Record	N/A			
SOP P3.4.1 Chemical Control Policy		N/A		
SOP P3.5.1 Garbage and Inedible Policy		N/A		

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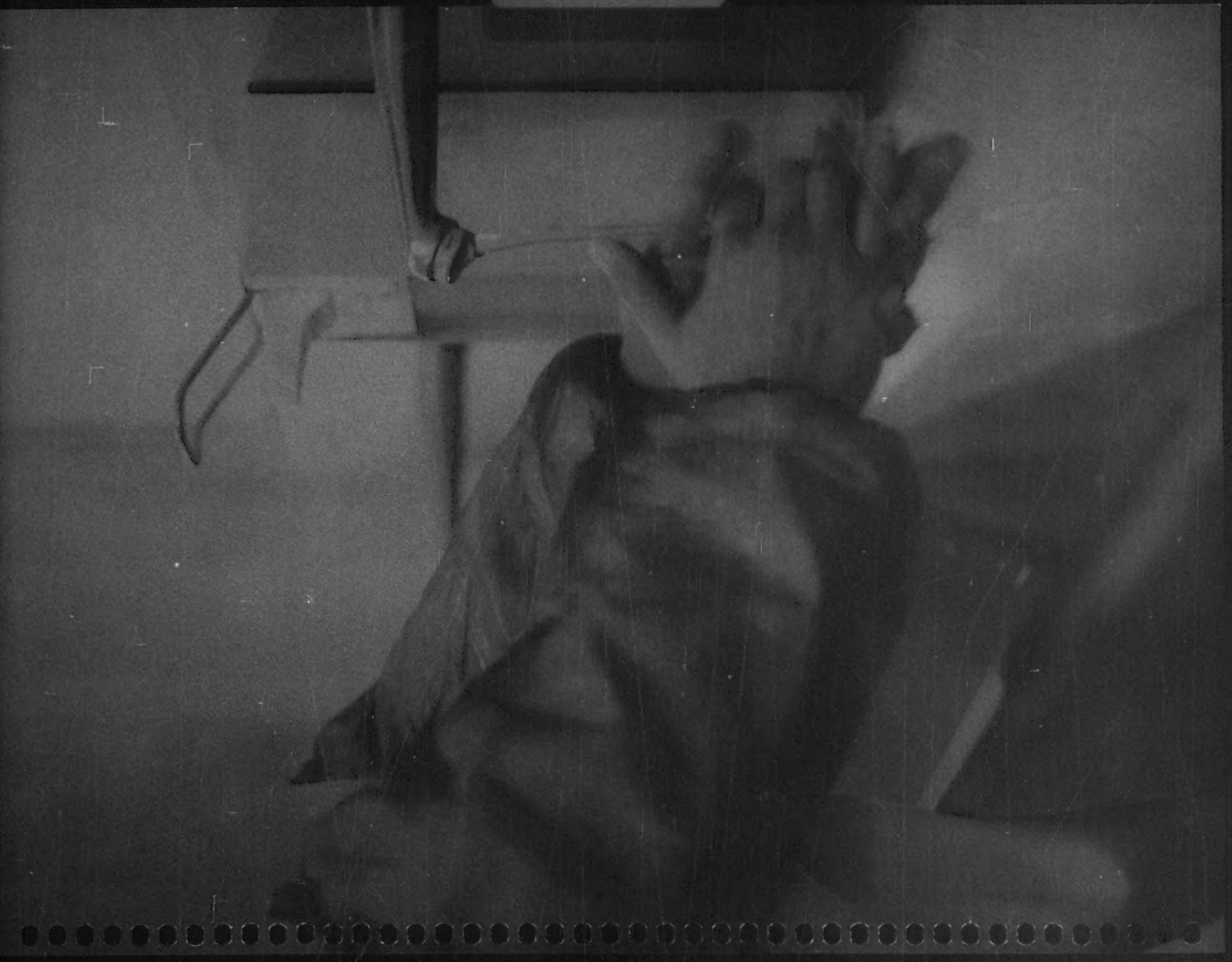

Sanitation

Why is it Important to Have a Sanitation Program?

Sanitation personnel play a major role in the production of safe food. Personnel who do not consistently follow sanitation procedures can cause contamination of food, ingredients, processing aids, packaging materials and food contact surfaces. Developing a sanitation program and effectively training sanitation employees can reduce potential hazards and minimize contamination risks.

There are many sources of contamination including food residues, dirt and chemical residues. Contamination can also be caused by allergens that are not effectively removed from food contact surfaces. The sanitation program should clearly address all areas of the facility that receive, store, process or pack; food, ingredients, processing aids or packaging materials.

Sanitation chemicals can cause contamination if they are not used according to the manufacturer's instructions. Overspray from cleaning and sanitizing activities during operations can contaminate product. Incorrect chemical concentrations can cause contamination of food as well. Chemical hazards can result if chemical concentrations are too high to be effectively rinsed. Conversely, biological hazards can result if chemical concentrations are too low and bacteria are not effectively removed.

A pre-operational inspection is performed before operations begin, to make sure that the facility and equipment is visibly clean. The pre-op may also include tests to determine if cleaning and sanitizing was effective in removing contaminants (e.g. swabbing, ATP tests).

A written sanitation program includes specific cleaning procedures for each and every piece of equipment and area in the facility that could affect food safety.

P4 Sanitation

Cleaning & Sanitizing P4.1

Written cleaning and sanitizing procedures and corresponding records are in use for rooms, equipment, utensils, drains, overheads and transportation vehicles (where appropriate) that may impact food safety. The procedures include instructions for:

- Disassembling equipment
- Cleaning equipment and utensils to be used
- Specific cleaning steps
- Application of sanitation chemicals
- Preventing cross-contamination
- Inspection after cleaning

Suggestions to Meet the Standard

Create a list of all rooms, equipment and utensils (see Example 1)

Develop cleaning and sanitizing procedures for all rooms, equipment, utensils, drains and overheads in the facility (see Example 2)

- Create cleaning and sanitizing procedures specific to your operation and equipment
- One procedure can be created for a group of items, (e.g. walls, ceilings and pipes) provided the same methods and chemicals are used
- Include the following seven steps for cleaning and sanitizing in your procedures:
    - Removing gross debris, rough clean, pre-rinse, clean, post-rinse, inspect, sanitize (rinse sanitizer if necessary)
- Most chemical suppliers provide cleaning procedures that are generic and should be tailored to your specific operation
- Indicate if any food contact equipment has special cleaning & sanitizing instructions such as CIP (clean in place) or disassembly instructions. If necessary, refer to the equipment manufacturers guide.
- Include instructions to prevent cross-contamination where necessary (e.g. remove food, ingredients, processing aids and packaging materials from the area before cleaning)
- Include instructions for handling sanitation chemicals including chemical mixing instructions, temperature requirements and chemical application time (see P3.4 Chemical Control for more information)

Remember to develop cleaning procedures for transportation vehicles if you use your own vehicles

Develop corresponding records for the cleaning & sanitizing procedures (see Example 3)

Develop a sanitation schedule (see Example 4)

- For items that are not cleaned daily, you may want to create a cleaning schedule to ensure all items are cleaned at the appropriate frequency

P4 Sanitation

Pre-Operational Inspection P4.2

Written pre-operational inspection procedures and corresponding records are in use which confirm that rooms, equipment and utensils are visibly clean.

Pre-operational inspections are performed before production begins and prior to resuming production when sanitation activities are performed during operations.

Suggestions to Meet the Standard

Develop a procedure for performing pre-operational inspections for all areas of the facility (see Example 5)

- Develop pre-operational inspection procedures for inspecting all rooms, equipment and utensils that may impact food safety
- Pre-operational inspections should be performed before production startup and prior to resuming production when sanitation activities are performed during operations
- Include specific instructions for inspecting complex equipment, e.g. band saw, brine injector, rotisserie oven, etc. For equipment that has food contact surfaces that are not visible when the equipment is reassembled, pre-operational inspections should occur prior to reassembly.
- The individual who performs the pre-operational inspection should be different from the individual who performed the cleaning and sanitizing
- Tests should be conducted, during the pre-operational inspection, to demonstrate that cleaning and sanitizing procedures are effective, particularly if the cleaning and sanitizing methods are unconventional. Tests can include bioluminescence (ATP) tests or swab tests. Tests should be sent to an accredited lab.

Develop corresponding records for the pre-operational inspection procedures (see Example 6)

- Pre-operational inspection records can combine items from sections other than Sanitation, minimizing the number of records to be completed and strengthens the pre-operational inspection; for example:
    - No evidence of pests from P6.1 Pest Control
    - Appropriate lighting from P9.2 Interior
    - No evidence of condensation from P9.5 Temperature Control & Ventilation

T4 Sanitation

Sanitation Training T3

Written procedures and corresponding records are in use for training on the sanitation program. The procedures identify:

- Personnel who require training
- The trainer
- Training material used
- Frequency of training
- Assessment method to confirm the training is understood

Training is provided prior to starting sanitation job duties, and whenever changes are made to the sanitation program.

Refresher training is provided at minimum once per year.

Suggestions to Meet the Standard

Develop a training procedure (see Example 7)

- Include instructions to ensure all the appropriate personnel are present for training (e.g. cross-reference training list, training schedule and up-to-date employee lists)
- The sanitation training procedure and material may be different for those employees responsible for cleaning & sanitizing and those responsible for pre-operational inspections and may be delivered in separate training sessions
- Material that can be used to support sanitation training includes:
    - Procedures developed in P4 Sanitation
    - OMAFRA's *Advantage GMP* Training Kit – Module 3: Sanitation
    - Hands on demonstration and practice e.g. in-plant demonstration of the disassembly, cleaning and sanitation of equipment
    - Videos and other visual aids
    - MSDS Sheets and instructions of usage for sanitation chemicals used at the facility

Develop corresponding records for training material presented (see Example 8)

- Training records list who is in attendance, the date the training took place, the topic, the material used and the name and signature or initial of the trainer
- The training records have space for employees to initial or sign to indicate they received the training

Develop a method to assess and prove employees who were trained understood the training material (see Example 9)

- For example a written or verbal test, observe the task being performed or job shadowing for a probation period

T4 Sanitation

Suggestions to Meet the Standard

Develop a training schedule

- The training schedule should include the employees (and their alternate backups) designated to conduct sanitation activities and their positions
- The training schedule is predetermined and indicates who needs to be trained and how often refresher training will occur
    - How often you have refresher training depends on your commodity, employee turnover rate and/or season of production e.g. once per year, once per season, or every six months
    - It may be easier to have one schedule for all 9 training standards (see Example 9 in P1 Personnel)

Remember to include corrective actions in training procedures (e.g. documenting employees absent from training and/or reassessing training materials if training is not effective)

All 9 GMP sections require training procedures and records be developed and used. You may consider combining training procedures and records for some or all 9 GMP sections. If training procedures are combined, be sure to include details from all sections in the combined procedure (e.g. materials used to train each section, detailed schedule).

V4 Sanitation

Sanitation Verification V3

Written procedures and corresponding records are in use for sanitation verification, which confirms at pre-determined intervals that:

- Cleaning and sanitizing activities are being performed as written
- Pre-operational activities are being performed as written
- Records are completed properly

Suggestions to Meet the Standard

Develop verification procedures

- To verify the sanitation program the most common method is to observe the task being performed and record whether the task is performed as written (see Example 10). Other verification methods include:
    - Interviewing the employees regarding the procedures and corrective actions for which they are responsible, e.g. ensuring that the sanitation employees are aware of the correct time, temperature and concentration required for a particular sanitation chemical
- To verify that sanitation records have been properly completed, all the records since the last verification should be reviewed. If no deviations are found, the number of records being verified can be decreased. Verification of the records is done to ensure that:
    - Mistakes have been crossed through with a single line and initialled by the designated employee and that liquid paper has not been used
    - Documents have been completed in permanent ink (no pencil)
    - All records are signed and dated by the designated employee
    - No blank spaces have been left on the record, if necessary "N/A" was recorded
    - The activities have been carried out in the appropriate frequency
    - There is no evidence of falsified entries
    - All deviations and corrective actions are documented and corrective actions are suitable
    - If food safety may have been compromised, affected items were put on Hold and a Food Safety Assessment was conducted
    - If a deviation was recurring, a root cause analysis was conducted

Develop a sanitation verification schedule based on the risk of the activity being performed

- If the swab results indicate that cleaning & sanitizing is not being performed properly, verification frequency should be increased to see if there is a failure in the cleaning procedure or in the employee's understanding of the cleaning procedure
- If there is a high employee turnover rate in the facility, it might be necessary to increase the frequency of the verification to ensure that the employee responsible for the sanitation activities is performing them according to the written procedures
- Generally, if the activity occurs daily then the verification would occur weekly. If the activity occurs weekly then the verification would occur monthly and so on.

V4 Sanitation

Suggestions to Meet the Standard

Develop corresponding records for sanitation verification procedures (see Example 11)

- A separate verification record can be created from the sanitation record or a space right on the sanitation record can be created for the verifier to record his/her findings and to date and sign
- All procedures and records that relate to the sanitation program should be listed on the verification record

EXAMPLE 1

Sanitation Room, Equipment and Utensil List

XYZ Food Facility	Room, Equipment and Utensils List	
	Written By: M. Smith	Code: RCD P4.1.1

Cook Packaging Room	**Preparation Room**
Walls, floors, ceilings, fixtures	Walls, floors, ceilings, fixtures
Stainless steel table	Stainless steel table
Hand wash sink	Scale
6 Shelves	2 Water buckets
Raw Forming Area	Ingredient transfer cart
Walls, floors, ceilings, fixtures	Hand wash sink
Sheeting machine	Mixer
20 Stainless steel trays	4 Spatulas
3 Aluminum racks	2 Ladles
2 Aluminum carts	2 Cart
Plastic bucket	**Kettle Cooking Room**
Scale	Walls, floors, ceilings, fixtures
Stainless steel table	Kettle #1
3 Scoops	Kettle #2
Conveyer	Stainless steel sink
2 Garbage bins	Mixing paddles
Hand wash sink	Hand wash sink
Jitney	**Cooler**
Cooking Room	Walls, floors, ceilings, fixtures
Walls, floors, ceilings, fixtures	8 Shelves
Steamer	Reefer
Oven	**Shipping/Receiving**
Hand wash sink	Walls, floors, ceilings, fixtures
2 Racks	Lift truck
Raw Preparation/Packaging Room	2 Hand carts
Walls, floors, ceilings, fixtures	**Spice Room**
Band saw #1	Walls, floors, ceilings, fixtures
Band saw #2	Scale
Hollymatic meat grinder/mixer	6 Shelves
Hobart bowl chopper	**Hallway/Foyer**
8 Cutting boards	Walls, floors, ceilings, fixtures
10 Cutting knives	
2 Hand wash sinks	
5 Stainless steel bins	
19 Plastic totes	
continued...	

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EXAMPLE 2

Sanitation Procedure

XYZ Food Facility	Band Saw #1 & #2 Cleaning Procedure (Raw Preparation/Packaging Room)	
	Written By: A. Smith	Code: SOP P4.1.17

Who:	**When:**
Designated trained sanitation personnel	Daily after production is finished, or during production as needed
Personal Protective Equipment (PPE)	
Employees must wear proper PPE: goggles and/or face shield, rubber boots, rubber apron, gloves, hard hat, respirator.	
What:	
Cleaning equipment needed: blue brush and squeegee	
Disassembly	Follow lock out/tag out procedures 1) Unscrew and remove cover 2) Remove the guard by pulling straight up 3) Place cover and guard in the equipment sink for cleaning following the procedure below 4) Cover the electrical portion with a plastic cover
Remove Gross Debris	Remove all visible debris and place in inedible red bin
Rough Clean	Using the brush, remove any debris and/or soils and put in inedible red bin
Pre-Rinse	Using low pressure ("X" ppi), and warm ("Y"°C) water, rinse all surfaces of the saw including the underside
Clean	Using "123 SuperFoam" at "XX" concentration, apply foam to all surfaces of the saw so it is completely covered, including the underside and paying close attention to crevices. Let the foam sit for at least 15 minutes
Post-Rinse	Using low pressure ("X" ppi), and warm ("Y"°C) water, thoroughly rinse away all foam. Pay close attention to crevices.
Inspect	Visually inspect, if any debris or soils are found repeat the above steps
Sanitize	Using "Super Sanitizer" with a concentration between "Q" and "Z" ppm, spray sanitizer on all surfaces of the saw, including the underside. Do not rinse sanitizer.
Re-assembly	Do not reassemble the saw, place the clean cover and guard on the saw for inspection during the pre-operational inspection Complete RCD P4.1.1 Raw Product Areas (Forming, Preparation and Packaging) Cleaning & Sanitizing Record, with your initials and the date

Deviations:	**Corrective Actions:**	**Records:**
Water temp is not at "Y"°C	Inform Supervisor, do not proceed with cleaning until correct temperature is reached. Adjust gauge until correct temperature is reached.	RCD P4.1.1 Raw Product Areas (Forming, Preparation and Packaging) Cleaning & Sanitizing Record
Sanitizer concentration is not between "Q" and "Z" ppm	Inform supervisor, do not proceed with sanitize step until correct concentration is reached. Delegated person will follow procedure for diluting chemicals and checking concentrations SOP P3.4.4.	
Food safety may have been compromised	Inform Supervisor. Follow Hold Procedure SOP P3.2.1.	
If deviation is recurring	Inform Supervisor who will ensure a root cause analysis is performed	

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EXAMPLE 3
Sanitation Record

XYZ Food Facility	Raw Product Areas (Forming, Preparation and Packaging) Cleaning & Sanitizing Record	
	Written By: A. Smith	Code: RCD P4.1.1

Who: Designated Trained Sanitation Employee
What: Record your name and the date in the space provided.
Indicate when cleaning is complete and that the corresponding cleaning procedure for each area/equipment was followed by writing a "✓" in the box to the right. If the equipment/area was not used or was not due for cleaning and therefore, cleaning was not necessary indicate this by writing "N/A" for not-applicable in the box to the right.
Include any deviations that occurred while following the corresponding cleaning procedures in the deviations and corrective actions box. Initial in the far right box for all areas and equipment.

Name:	**Date:**

Frequency: D Daily; W weekly; M monthly; Q quarterly; S semi-annual; Y yearly

Area/Equipment	Frequency	Complete? ✓ or N/A	Deviations and Corrective Actions	Sanitation Employee Initials
Raw Forming Area				
Walls, ceiling, floors & fixtures	D			
Drain covers	D			
Sheeting machine	D			
20 Trays	D			
3 Racks	D			
2 Carts	D			
Plastic bucket	D			
Scale	D			
Table	D			
3 Scoops	D			
Conveyer	D			
2 Garbage bins	D			
Hand wash sink	D			
Drains	W			
Jitney	Q			
Raw Preparation/Packaging Room				
Walls, ceiling, floors & fixtures	D			
Drain covers	D			
Band saw #1	D			
Band saw #2	D			
Meat grinder/mixer	D			
continued…				

EXAMPLE 4

Sanitation Schedule

XYZ Food Facility	Master Sanitation Schedule	
	Written By: A. Smith	Code: RCD P4.1.2

All rooms, equipment, and utensils are cleaned and sanitized according to this schedule. Equipment to be cleaned daily and weekly is not included on this schedule.

An "✓" indicates that cleaning of the equipment is to occur during the corresponding month.

M monthly; Q quarterly; S semi-annually; Y yearly

Equipment/ Area	Frequency	Jan	Feb	Mar	Apr	Ma	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Raw Forming Area													
Jitney	Q	✓			✓			✓			✓		
Cooking Room													
Steamer	M	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Oven	M	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Raw Preparation/Packaging Room													
Reefer	Y	✓											
Cooler													
Walls, ceiling, floors	Q	✓			✓			✓			✓		
Drains	Y	✓											
8 Shelves	Q	✓			✓			✓			✓		
Reefers	Y	✓											
Shipping/Receiving													
Walls, ceiling, floors	S		✓						✓				
Drains	S		✓						✓				
Lift truck	Q		✓			✓			✓			✓	
2 Hand carts	Q		✓			✓			✓			✓	
Spice Room													
Walls, ceiling, floors	Q			✓			✓			✓			✓
Drains	Q			✓			✓			✓			✓
6 Shelves	Q			✓			✓			✓			✓
Hallway/Foyer													
Walls, ceiling, floors	Q			✓			✓			✓			✓

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EXAMPLE 5

Pre-Operational Inspection Procedure

XYZ Food Facility	Raw Product Area - Pre-Operational Inspection Procedure	
	Written By: A. Smith	Code: SOP P4.2.1

Who: Designated, trained sanitation personnel

When:

- Before production start-up
- During operations after any unscheduled cleaning and sanitizing

What:

1. Walk through the production room and visually ensure that processing equipment is in good sanitary and operational condition and is ready for the start of processing
2. By using a flashlight and closely looking at all surfaces of the equipment:
   I. Ensure that equipment is visibly clean and free of food, residues, filth
   II. Ensure that there are no broken or damaged parts of equipment (such as conveyor belts, paddles and metal lacing etc.)
   III. If equipment was repaired during operational hours, ensure that no tools, parts or gloves are left at the working area and confirm that cleaning and sanitizing has been completed
3. Ensure floors, walls, ceilings, light fixtures are visibly clean
4. Following SOP P4.2.7 ATP Test Procedure, perform an ATP test and record the results
5. Complete record RCD P4.2.1 including date, initials and all deviations and corrective actions
6. After the entire pre-operational inspection is found to be acceptable release the room for production by placing the green "Pre-Op OK" sign outside of the room

Deviations:	Corrective Actions:	Records:
Equipment is not visibly clean	• Do not release the room to production • Inform the Food Safety Coordinator and/or Sanitation Supervisor and/or Maintenance Supervisor of the problem who will have it corrected • Repeat Pre-Operational Inspection • Do not start production until the deviation is corrected • Date and initial the record	RCD P4.2.1 Pre-operational Assessment Record
If food safety may have been compromised	Inform Supervisor. Follow Hold Procedure SOP P3.2.1.	
If deviation is recurring	Notify the Sanitation Supervisor who will retrain the sanitation employee and will ensure a root cause analysis is performed	

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EXAMPLE 6

Pre-Operational Inspection Record

XYZ Food Facility	Raw Product Area - Pre-Operational Inspection Record	
	Written By: A. Smith	Code: RCD P4.2.1

What: Indicate with a "Yes" or "No" that rooms, equipment, and utensils are visibly clean; free from food, residues and filth.
If "NO" then complete the deviations and corrective actions section and inform the Sanitation Supervisor immediately.
After the entire pre-operational inspection is found to be acceptable release the room for production by placing the green "Pre-Op OK" sign outside of the production room.

Name: Cassandra Swanson **Date:** January 19, 2008

Raw Forming Area	Visibly Clean? Yes/No	Deviations	Corrective Actions	Initials
Walls	yes			CS
Ceiling	yes			CS
Floor	yes			CS
Drain covers	yes			CS
Trays	yes			CS
Racks	yes			CS
Bucket	yes			CS
Scale	no	Scale #2 was left with film on the food contact surface	Informed the sanitation supervisor immediately, the scale was removed from the room to be cleaned, sanitized and then recalibrated at lunch before use. Pre-Operational Inspection was re-conducted and was found acceptable before processing was allowed to begin. Jan.19/08	CS
Table	no	Table in the North/ East side of the room had food scraps left of it.	Informed the sanitation supervisor immediately to have cleaning and sanitizing activities performed again. Pre-Operational Inspection was re-conducted and was found acceptable before processing was allowed to begin. Jan.19/08	CS
Scoop	yes			CS
Cart	yes			CS

EXAMPLE 7

Sanitation Training Procedure

XYZ Food Facility	Sanitation Training Procedure	
	Written By: A. Foster	Code: SOP T4.1

Who:
Sanitation Supervisor or trained designate will deliver training to personnel who will be responsible for sanitation and/or pre-operational inspection activities

When:
- Prior to designated sanitation personnel performing sanitation and pre-operation inspection duties
- Yearly refresher training
- When changes are made to the sanitation program
- As needed if deviations are found

What:
1. Train personnel who are designated to perform sanitation activities before they perform any sanitation activities
2. Ensure all appropriate trainees are present by cross-referencing the sanitation personnel staff list, Master Training Schedule and Human Resources, new hiring lists
3. Deliver training in two parts:
   Part 1 – In-class session where general sanitation is taught, followed by the sanitation procedures specific to the personnel being trained (e.g. sanitation procedures for the raw product area will be taught to the sanitation personnel assigned to this area). See material to be covered listed below.
   Part 2 – Hands-on training. Demonstrate the sanitation procedure to the trainees and then have the trainees complete the procedure, including completing the associated records.
4. After the in-class and hands-on training is complete, have each trainee complete the Sanitation Training Assessment RCD T4.2. Trainees must get a passing mark of 9 out of 11 to complete training.
5. Upon completion of training, the name and signature of the trainer, the name and signature of the persons trained, the topic/area of training given and the date of the training will be recorded on the RCD T4.1 Sanitation Training Record.

The training material to be covered during the in-class portion:

Cleaning & Sanitizing P4.1
- OMAFRA's *Advantage GMP* Training Kit – Module 3: Sanitation
- Cleaning & Sanitizing procedures and records from P4.1 for each room/area, piece of equipment, utensil, and outgoing transportation vehicle
- MSDS sheets for each chemical

Pre-operational Assessment P4.2
- OMAFRA's *Advantage GMP* Training Kit – Module 3: Sanitation
- Pre-operational Inspection procedures from P4.2

Deviations:	Corrective Actions:	Records:
Employee is absent from training	Train the employee before they start/return to work	RCD T4.1 Sanitation Training Record
Any questions on Sanitation Training Assessment answered incorrectly	Discuss all incorrect questions with the trainee until satisfied they understand the content. Retrain in-detail if necessary.	
Employee does not pass the Training Assessment	Retrain the trainee, following the above procedure, immediately if possible. Do not permit the trainee to perform sanitation activities until they have successfully completed the Sanitation Training Assessment.	RCD T4.2 Sanitation Training Assessment

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EXAMPLE 8

Sanitation Training Record

XYZ Food Facility	Sanitation Training Record	
	Written By: B. McDonald	Code: RCD T4.1

Date of Training Session: March 27, 2008

Trainer's Name: Antony Frederico

Signature of Trainer: A. Frederico

Topic/Area of Training: Cleaning and Sanitizing of Raw Product Area

Training is based on:

- OMAFRA's *Advantage GMP* Training Kit – Module 3 Sanitation
- Cleaning & Sanitizing Procedures
- MSDS Sheets

Name of Trainee (please print clearly)	Signature of Trainee
My signature verifies that I have received and fully understand the training listed above	
John Smith	John Smith
Sarah Cowtan	Sarah Cowtan
Mahmet Al-Fulan	Mahmet Al-Fulan
Jim Jones	Jim Jones
Yu Chong	Yu Chong

All employees listed (and as indicated on the Training Schedule) must receive the training before starting work.
If an employee is not present for the training session they must be trained upon their return to work.

Deviations:	Corrective Actions:

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EXAMPLE 9

Sanitation Training Assessment

XYZ Food Facility	Sanitation Training Assessment	
	Written By: B. McDonald	Code: RCD T4.2

Name: _____ Date: _____

Circle the correct answers:

1. The neutral pH of water is considered to be:
   a. 5.5-7.5
   b. 7.5-8.5
   c. 6.5-7.5

2. The purpose of cleaning and sanitizing is to:
   a. Make the plant look nice
   b. Keep staff busy
   c. Reduce the risk of food contamination and pest infestation

3. Factors that can affect cleaning effectiveness include:
   a. The detergent or cleaner to be used
   b. Water temperature
   c. The concentration of the cleaner
   d. The water velocity or force (elbow grease)
   e. All of the above

Answer the following questions as either being "T" for True or "F" for False:

4. At "XYZ Food Facility" we use both alkaline and acid cleaners T___ F ___
5. A record is needed when cleaning T___ F ___
6. At "XYZ Food Facility" we use the seven steps for cleaning and sanitizing T___ F ___
7. "ABC" is a sanitizer that needs rinsing with water after being used on food surfaces T___ F ___
8. A 5-10 minute wait before rinsing is required for the foamer hose to work effectively T___ F ___
9. The effectiveness of cleaning can be tested by taking swabs T___ F ___
10. All sanitation chemical containers must have labels T___ F ___
11. At "XYZ Food Facility" white coloured brushes are used to clean food contact surfaces, red coloured brushes are used to clean non food contact surfaces T___ F ___

Mark: **/11** (must get a mark of at least 9 to pass)

Passed **Y___ N___** **Trainer:** _____

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EXAMPLE 10

Sanitation Verification Procedure

XYZ Food Facility	Sanitation Verification Procedure	
	Written By: P. Bailey	Code: SOP V4

Who: Sanitation Supervisor or Food Safety Coordinator

When: Monthly

What:

Verification of the Cleaning & Sanitizing and Pre-Operational Inspection Records

1. Review previous month's records (P4.1.1-.37 and P4.2.1-.5) since the last verification to ensure that all the tasks were completed as scheduled.
   - Review the documentation to ensure it is complete:
     - Mistakes have been crossed through with a single stroke and that pencil and liquid paper have not been used
     - All deviations and corrective actions are recorded on the record and that the corrective actions were appropriate
     - Records are signed and dated by the designated employee
     - No blank spaces were left on the record, "N/A" was recorded if necessary
     - No evidence of falsified entries
     - If food safety may have been compromised, affected items were put on Hold and a Food Safety Assessment was conducted
     - If there were repeat deviations, a root cause analysis was conducted

Verification of the Cleaning & Sanitizing and Pre-Operational Inspection Procedures

2. Bring the procedure with you and meet with the designated employee
3. Observe the designated employee performing the tasks as written in the procedure (SOPs from P4.1 and P4.2)
4. Upon completion of the verification of Sanitation records and procedures, record all deviations and corrective actions before signing and dating the RCD V4 Sanitation Verification Record

Deviations:	Corrective Actions:	Records:
Records are incomplete	• Investigate why the record was not complete • Retrain the employee and record the training	RCD V4 Sanitation Verification Record
Employee not doing what is written in the procedure	• Retrain employee on the proper procedure and record the training • The Food Safety Coordinator may consider revising the procedure to reflect what personnel are doing if it will not compromise food safety	
If food safety may have been compromised	• Inform Area Supervisor. Follow Hold Procedure SOP P3.2.1.	
If deviation is recurring	• Perform a root cause analysis • If necessary, retrain employee, remove employee from these duties and/or begin the disciplinary action process • Record training	

EXAMPLE 11

Sanitation Verification Record

XYZ Food Facility	Sanitation Verification Record	
	Written By: B. McDonald	Code: RCD V4

Who: Food Safety Coordinator
When: Monthly
What: Observe that sanitation personnel are following the cleaning & sanitizing and pre-operational inspection procedures as written and that the corresponding records are being completed appropriately.

A "✓" indicates that the criteria has been met.
An "X" indicates that the criteria have not been met.
Record any deviation(s) and corrective action(s) on this record.

Date:	Name of Verifier (print):	Signature of Verifier:

Procedure	Procedures Followed ✓ X	Records Completed Correctly ✓ X	Deviations	Corrective Actions
Walls, floors, ceilings and fixtures SOP P4.1.1				
Band saw SOP P4.1.2				
Hand wash sink SOP P4.1.3				
Shelves SOP P4.1.4				
Sheeting machine SOP P4.1.5				
Stainless steel trays SOP P4.1.6				
Aluminum racks SOP P4.1.7				
Aluminum carts SOP P4.1.8				
Plastic buckets SOP P4.1.9				
Scale SOP P4.1.10				
continued…				
Pre-Operational Inspection – Processing Room SOP P4.2.1				
Pre-Operational Inspection – Storage Coolers SOP P4.2.2				
continued….				

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Preventative Maintenance & Calibration

Why is it Important to Have a Preventative Maintenance & Calibration Program?

An effective preventative maintenance and calibration program ensures that equipment that could impact food safety works the way it should and does not present food safety hazards. A preventative maintenance and calibration program helps to ensure that biological, chemical and physical hazards are controlled. A preventative maintenance and calibration program can also save time and money by reducing unscheduled downtime and unexpected major repairs.

If not maintained properly: coolers may not remain at the correct temperature leading to bacterial growth, conveyor belts could fray causing physical contamination and tables could become pitted or scratched, causing areas for harbourage of bacterial contamination.

If not calibrated properly: thermometers may not indicate the correct cooking temperatures, metal detectors may not detect metal hazards, and scales may cause too much or too little preservative to be added.

A preventative maintenance and calibration program includes a list of equipment which may impact food safety, preventative maintenance and calibration procedures, and corresponding records. The program ensures equipment is working as intended and that the equipment itself does not contribute food safety hazards.

P5 Preventative Maintenance & Calibration

Preventative Maintenance & Calibration P5.1

Written preventative maintenance and calibration procedures and corresponding records are in use for equipment and devices that may impact food safety, to ensure they operate as intended. Procedures include instructions for:

- Inspection, service and lubrication of equipment
- Calibration of equipment

Suggestions to Meet the Standard

Create a list of all the equipment which may impact food safety (see Example 1) including:

- Any food contact equipment (e.g. conveyors, agitators, grinders, tanks, injectors, tenderizers, saws)
- Equipment designed to cook or otherwise reduce or eliminate bacterial load (e.g. smoke houses, ovens, pasteurizers and kettles, fermentation room)
- Equipment designed to control processing conditions such as pressure, temperature, time, pH, water activity (e.g. thermometers, timers, gauges, pH meters, water activity meters)
- Equipment designed to weigh or add ingredients, processing aids or preservatives (e.g. scales, chlorine feeders and ingredient dispensers)
- Equipment designed to detect or remove metals, bones, stones, glass, wood and other foreign material (e.g. metal detectors, X-ray, magnets, screens, air filters, optical sorters)
- Equipment designed to store food at controlled temperature (e.g. freezers, coolers, water-baths)
- Equipment designed to control cross-contamination (e.g. boot washers, foamers)

Develop preventative maintenance procedures for all equipment on your list, (see Example 2) including instructions for:

- Equipment disassembly
- Adjustment and/or replacement of parts that are deteriorated or damaged
- Selecting the appropriate and approved chemical depending on the equipment (grease, lubricants, refrigerants, etc.)
- Lubrication and cleaning of parts
- Inspecting the equipment to ensure the parts are working as intended
- Equipment re-assembly
- Testing the equipment to ensure it is working as intended
- Preventing cross contamination during maintenance
- Ensuring the area and equipment are clean after maintenance and all tools and parts are accounted for

Develop calibration procedures (see Example 4)

- Where applicable procedures should include instructions for:
    - Initial setup in calibration mode (e.g. pH meter, packaging equipment)
    - Checking the current operation of the equipment/device
    - Actions to be taken if the equipment/device is out of specification (e.g. risk assessment, rework, recall if necessary)

P5 Preventative Maintenance & Calibration

Suggestions to Meet the Standard

- Adjustment if the equipment/device does not fall within the required specifications/limits
- Ensuring the device operates within its specifications after the adjustment
- Ensuring the area and equipment are clean after calibration and all tools and parts are accounted for

- Calibrations should be performed using reference equipment (e.g. certified thermometer)

The equipment manual from the manufacturer can be referenced and included in procedures as it has information that can help to develop preventative maintenance and calibration procedures

Consider creating equipment ID numbers to help identify equipment. The ID number can be selected randomly or be part of the serial number.

Chemicals used for maintenance should be listed on the CFIA's Reference Listing of Accepted Construction Materials, Packing Materials and Non-Food Chemicals Products or have a letter of no objection from Health Canada. See P3.4 Chemical Control for more information.

If equipment is found to be out of specification or a deviation is found, a food safety assessment should be conducted on all food, ingredients, processing aids and packaging materials used since the last good check

Develop preventative maintenance and calibration records (see Examples 3 & 5)

- It might be beneficial to record the activities or findings of multiple maintenance/calibration activities on one record

Schedule preventative maintenance and calibration based on risk, recommendations from the manufacturer and history of the equipment breaking down

- You may find it helpful to develop an overall preventative maintenance and calibration schedule particularly for maintenance performed less frequently such as quarterly or semi-annual maintenance

If external contractors are used for preventative maintenance or calibration:

- Their qualifications should be evaluated (e.g. reference checks, license)
- The service report can be used as the preventative maintenance and/or calibration record. The service report should be reviewed, signed and dated by a designated facility employee.
- Keep all supporting documentation (e.g. calibration certificates for scales, thermometers, light meter)

T5 Preventative Maintenance & Calibration

Preventative Maintenance & Calibration Training T5

Written procedures and corresponding records are in use for training on the preventative maintenance and calibration program. The procedures identify:

- Personnel who require training
- The trainer
- Training material used
- Frequency of training
- Assessment method to confirm the training is understood

Training is provided prior to starting preventative maintenance and calibration job duties, and whenever changes are made to the preventative maintenance and calibration program.

Refresher training is provided at minimum once per year.

Suggestions to Meet the Standard

Develop a training procedure (see Example 6)

- Include instructions to ensure all the appropriate personnel are present for training (e.g. cross-reference training list, training schedule and up-to-date employee lists)
- Training material may be different between facilities conducting in-house preventative maintenance and calibration and facilities using a contracted company or a combination of both

For in-house preventative maintenance and calibration programs

- Additional training material may be required if preventative maintenance and calibration is done in-house. Personnel should be trained on the P5 procedures, and the handling, preparing and applying of maintenance chemicals
- Training material that can be used to support in-house preventative maintenance and calibration training includes:
    - Procedures developed in P5 Preventative Maintenance & Calibration
    - OMAFRA's *Advantage GMP* Training Kit – Module 5: Equipment Maintenance
    - Hands-on demonstration and practice
    - Videos and other visual aids
    - MSDS Sheets and instructions for usage of preventative maintenance chemicals used at the facility

For contracted preventative maintenance and calibration services

- Contractors should provide proof they qualified for work they will be doing
- Your facility will provide training on your facility schematic, traffic patterns, personnel practices, production schedules and any other relevant practices

T5 Preventative Maintenance & Calibration

Suggestions to Meet the Standard

- Training material that can be used to support preventative maintenance and calibration training if a contracted company is used includes:
    - Procedures developed in P1 Personnel, P5 Preventative Maintenance & Calibration etc.
    - Plant Schematic, Traffic flow, facility tour
    - Production Schedules

Develop corresponding records for training material presented: (see Example 7)

- Training records list who is in attendance, the date the training took place, the topic, the material used and the name and signature of the trainer
- The training records have space for employees to initial or sign to indicate they received the training

Develop a method to prove employees who were trained understood the training material

- For example, a written or verbal test, observe the task being performed or job shadowing for a probation period (see Example 9)

Develop a training schedule

- The training schedule should include the employees (and the alternate backup) designated to conduct preventative maintenance and calibration activities and their positions
- The training schedule is predetermined and indicates who needs to be trained and how often refresher training will occur
    - How often you have refresher training depends on your commodity, employee turnover rate and/or season of production e.g. once per year, once per season, every six months
- It may be easier to have one schedule for all 9 training standards (see Example 9 in P1 Personnel)

Remember to include corrective actions in procedures (e.g. documenting employees absent from training and/or reassessing training materials if training is not effective)

All 9 GMP sections require training procedures and records be developed and used. You may consider combining training procedures and records for some or all 9 GMP sections. If training procedures are combined, be sure to include details from all sections in the combined procedure (e.g. materials used to train each section, detailed schedule).

V5 Preventative Maintenance & Calibration

Preventative Maintenance & Calibration Verification V5

Written procedures and corresponding records are in use for preventative maintenance & calibration verification, which confirms at pre-determined intervals that:

- Preventative maintenance and calibration activities are being performed as written
- Records are completed properly

Suggestions to Meet the Standard

Develop verification procedures

- To verify your preventative maintenance and calibration program, the most common method is to observe the task being performed and record whether the task is performed as written (See Example 9)
- Other methods include interviewing the employee trained in preventative maintenance and calibration activities about the procedures and corrective actions for which they are responsible, e.g. creating hypothetical situations related to preventative maintenance and calibration activities and questioning the employee to evaluate his/her knowledge
- To verify preventative maintenance and calibration records are being properly completed, all the records since the last verification should be reviewed. If no deviations are found, the number of records being verified can be decreased. Verification of the records is done to ensure that:
    - Mistakes have been crossed through with a single line and initialled by the designated employee and that liquid paper has not been used
    - Documents have been completed in permanent ink (no pencil)
    - All records are signed and dated by the designated employee
    - No blank spaces have been left on the record, if necessary "N/A" was recorded
    - The activities have been carried out in the appropriate frequency
    - There is no evidence of falsified entries
    - All deviations and corrective actions are documented and are suitable
    - If food safety was compromised, affected items were put on Hold and a Food Safety Assessment was conducted
    - If a deviation was recurring, a root cause analysis was conducted

Develop a preventative maintenance verification schedule based on the risk of the activity being performed. For example:

- If there is a high employee turnover rate in the facility, it might be necessary to increase the frequency of the verification to ensure that the employee responsible for the preventative maintenance and calibration activities is performing them according to the written procedures
- Generally, if the activity occurs daily then the verification would occur weekly, if the activity occurs weekly then the verification would occur monthly, and so on

V5 Preventative Maintenance & Calibration

Suggestions to Meet the Standard

Develop corresponding records for preventative maintenance and calibration verification procedures, remember to include corrective actions in all procedures and records (see Example 10)

- A separate verification record can be created from the monitoring record or a column or space right on the monitoring record can be created for the verifier to record findings and to date and sign
- All procedures and records that relate to the preventative maintenance and calibration program should be listed on the verification record

EXAMPLE 1

List of Equipment that May Impact Food Safety

XYZ Food Facility	Preventative Maintenance & Calibration List	
	Written By: B. Lance	Code: RCD P5.1.1

Area	Equipment	ID Number
Receiving	Freezer	246 FR
	Reefer unit A Cooler #2	544 CO
	Dial Bimetal Coil Thermometer	124 BCT
Mixing Area	Scale #1	123 SC
	Scale #2	124 SC
	Scale #3	125 SC
	UV Lamp for water treatment	243 UV
	pH meter #1	324 PH
	pH meter #2	325 PH
	Mixing Tank	567MT
	Stuffer	ST765
Packaging	Metal detector	987 MD
	Cooler #1	543 CO
	Conveyor #1	324 CV
Cooking	Kettle #1	567 KT
	Kettle #2	566 KT
	Steamer	677 ST
	Oven	988 OV
	Conveyor #1	324 CV
	Conveyor #2	325 CV
	Condiments-tank	42 T
continued…		

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EXAMPLE 2

Preventative Maintenance Procedure

XYZ Food Facility	Preventative Maintenance Procedure Stuffer– ST765	
	Written By: M. Castellanos	Code: SOP P5.1.24

Who:	**When:**
Designated trained maintenance employee	Weekly & Monthly (see below)

Personal Protective Equipment (PPE)

Goggles and/or face shield

What:

Always disconnect power before working on the equipment

Weekly Maintenance

1. Remove the vacuum cover
2. Remove the seal that is on top of the vacuum adaptor
3. Replace the seal
4. Put on the vacuum cover
5. Remove the filter of the vacuum pump by removing screws #2 and #3
6. Inspect and clean the filter. If the filter has cracks, replace it.
7. Put the filter back
8. Remove the stuffing box using pulling screws
9. Take off the oil drain screw
10. Fill with one liter of "ABC Oil"
11. Install the stuffing box
12. Connect power and turn on the vacuum pump
13. Check the pump to determine if it is working properly. If cavitation is detected, stop the pump and find the cause
14. Ensure the stuffer is cleaned and sanitized according to SOP P3.1.24 before it is used
15. Fill out RCD P5.1.1 Preventative Maintenance Record, including the date and your initials

Monthly Maintenance

Lubricate chain of conveyor system with "CBA Grease"

After maintenance is finished, clean the surface of the equipment and ensure that all the parts that were removed from the equipment are accounted for and ensure all tools are in the tool box

Deviations:	**Corrective Actions:**	**Records:**
Pump is not working properly after the maintenance activities	Turn off the pump. Check if the seal is in the right position. If the pump cannot be fixed, call the manufacturer for advice. Use the manual stuffer until the pump is fixed.	RCD P5.1.1 Preventative Maintenance Record
Food safety may have been compromised	Inform Supervisor. Follow Hold Procedure SOP P3.2.1.	
If deviation is recurring	Inform Supervisor who will ensure a root cause analysis is conducted	

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EXAMPLE 3

Preventative Maintenance Record

XYZ Food Facility	Weekly Preventative Maintenance Record	
	Written By: P. Diaz	Code: RCD P5.1.1

Who: Designated trained maintenance personnel **When:** Weekly
What: Record the week, the year and your name in the space provided
Record the date that the maintenance was conducted. Initial and write the time in the appropriate boxes. Describe the deviation and corrective actions taken in the corresponding column.

Date: November 17-21 **Year:** 2008 **Name of the employee:** Rene O'brien

Preventative Maintenance

Equipment - ID number	Maintenance conducted	Date Completed	Time	Deviation Yes/No	Deviations	Corrective Actions	Initials
Stuffer - ST765	Yes	Nov 17, 08	7:20 am	Yes	There is a leak in the vacuum pump that can not be fixed	Pump was sent to the manufacturer to be repaired. Placed an order for a spare pump. Pump was replaced, inspected and is operational. Nov. 19/08	RO
Oven - 988 OV	Yes	Nov 17, 08	8:05 am	No			RO
Steamer - 677 ST	NO	Nov 18, 08	2:45 pm	Yes	Was unable to perform the scheduled preventative Maintenance because the parts that have to be replaced were not in stock.	Supervisor was informed and the parts were ordered. PM performed on Nov 27, 08. In the meantime this steamer was not used.	RO
Cooler #2 - 544 CO	Yes	Nov 17, 08	8:30 am	No			RO
UV Lamp # - 243 UV	Yes	Nov 18, 08	1:20 pm	No			RO
Kettle #1 - 567 KT	Yes	Nov 21, 08	2:50 pm	No			RO
continued...							

EXAMPLE 4

Calibration Procedure

XYZ Food Facility	Calibration Procedure - Dial Bimetal Coil Thermometer	
	Written By: F. Ordonez	Code: SOP P5.1.6

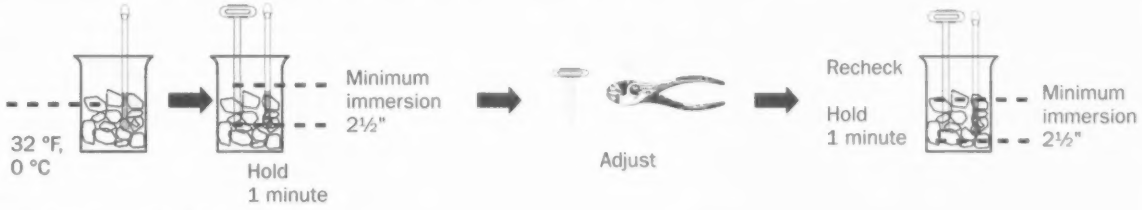
Who: Designated trained maintenance employee **When:** Weekly

Personal Protective Equipment (PPE): Heat resistant gloves

What:

Calibration procedure for cold process

1. Fill a container labeled "calibration-container" with crushed ice & distilled water up to the green line
2. Let stand 10 minutes
3. Insert the certified calibration thermometer being careful not to contact the sides of the container (minimum immersion 6½ cm or 2½ inches)
4. Insert the Dial Bimetal Coil (DBC) thermometer (minimum immersion 6½ cm or 2½ inches) and hold it for 1 minute
5. Compare readings and adjust the DBC thermometer if necessary (to make the readings match) and repeat steps 1 to 4 to make sure the adjustment was effective
6. Maximum error allowed ±1 ºC
7. Record the results on the calibration record (RCD P5.1.2) and complete the record with the date and initials



Calibration Procedure for hot process

1. Fill a container labeled "calibration-container" with boiling water up to the green line
2. Insert the certified calibration thermometer (do not contact sides of container; (minimum immersion 6½ cm or 2½ inches)
3. Insert the Dial Bimetal Coil (DBC) thermometer (minimum immersion 6½ cm or 2½ inches) and hold it for 1 minute
4. Compare readings and adjust the DBC thermometer if necessary and repeat steps 1 to 4 to make sure the adjustment was effective
5. Maximum error allowed ±1 ºC
6. Record the results on the calibration record (RCD P5.1.2) and complete the record with the date and initials

Deviations:	**Corrective Actions:**	**Records:**
DBC thermometer does not register the right temperature after three calibration cycles	Inform Supervisor. Contact manufacturer to replace DBC thermometer	RCD P5.1.2 Weekly Calibration Record
Food safety may have been compromised	Inform Supervisor. Follow Hold Procedure SOP P3.2.1.	
If deviation is recurring	Inform Supervisor who will ensure a root cause analysis is conducted	

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EXAMPLE 5
Calibration Record

XYZ Food Facility	Weekly Calibration Record	
	Written By: P. Diaz	Code: RCD P5.1.2

Who: Designated trained maintenance personnel
What: Record the week, the year and your name in the space provided.
Record the date the calibration was conducted in the appropriate box
Describe any deviations and corrective actions taken in the corresponding column before initialing.
When: Weekly

Date (week): November 14-21 **Year:** 2008 **Name of the employee:** Rene O'brien

Calibration

Equipment - ID number	Date Conducted	Time	Deviation Yes/No	Deviations and Corrective Actions	Initials
pH meter - 325 PH	Nov 17	9:45 a.m.	No		RO
pH meter - 324 PH	Nov 19	7:45 a.m.	Yes	Deviation: pH meter can not be calibrated because the buffers are expired. Corrective Actions: Put all product that could have been effected on hold. Informed Food Safety Coordinator and Production Supervisor. New buffers will be purchased. Calibration of the pH meter will be re-scheduled for November 22. pH meter 325 PH used instead. New buffers arrived and calibration performed on Nov. 23/08.	RO
Dial Bimetal Coil Thermometer - 124 BCT	Nov 21	3 p.m.	No		RO

EXAMPLE 6

Preventative Maintenance & Calibration Training Procedure

XYZ Food Facility	Preventative Maintenance & Calibration Training Procedure	
	Written By: H. Garay	Code: SOP T5

Who:
Maintenance Supervisor or trained designate will deliver the training to employees responsible for preventative maintenance and/or calibration duties

When:
- Prior to designated personnel performing preventative maintenance and/or calibration job duties
- Yearly refresher training
- When changes are made to the program
- As necessary if deviations are found

What:

1. Ensure all appropriate trainees are present by cross-referencing the maintenance personnel staff list, Master Training Schedule and Human Resources, new hiring lists
2. Train trainees on preventative maintenance and calibration of the equipment for which they will be responsible. Training will consist of hands-on/demonstration training and in class, using the corresponding materials for the following training topics for each piece of equipment:

Training topic	**Material to be used**
Equipment disassembly procedure, maintenance and calibration activities, inspection and reassemble	All P5 Preventative Maintenance & Calibration procedures Manufacturer's Manual
Equipment lubrication	All P5 Preventative Maintenance & Calibration procedures Lubricant MSDS Manufacturer's Manual
Cleaning after maintenance Equipment maintenance and cross-contamination	OMAFRA *Advantage GMP* Training Kit – Module 4: Equipment maintenance P4.1 Cleaning & Sanitizing procedures for applicable
How to complete associated records	P5 Preventative Maintenance & Calibration Records

3. After the in-class portion have trainees write the Preventative Maintenance & Calibration Assessment (RCD T5.2). Trainees must get a passing mark of 4 out of 6
4. After the hands-on portion ask the trainees to explain how to perform the maintenance or calibration to determine if they have understood the training
5. Upon completion of the training, the name and signature of the trainer, the name and signature of the person trained, the type of training given and the date of the training will be recorded on RCD T5.1 Preventative Maintenance & Calibration Training Record

Deviations:	**Corrective Actions:**	**Records:**
Employee is absent from training	Train the employee before they start/return to work	RCD T5.1 Preventative Maintenance & Calibration Training Record RCD T5.2 Preventative Maintenance & Calibration Training Assessment
Employee did not pass the Preventative Maintenance & Calibration Training Assessment	Employee is re-trained and a hands-on training session is conducted	

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EXAMPLE 7

Preventative Maintenance & Calibration Training Record

XYZ Food Facility	Preventative Maintenance & Calibration Training Record	
	Written By: M. Ordonez	Code: RCD T5.1

Date of Training Session: October 13, 2007

Trainer's name: Joseph Lance

Signature of Trainer: J Lance

Training Topic/Materials:
Stuffer Maintenance

- SOP P5.1.37 Preventative Maintenance Procedure for Stuffer - ST765
- Stuffer Manual
- Lubricant MSDS
- OMAFRA's *Advantage GMP* Training Kit – Module 4: Equipment maintenance
- SOP P4.1.52 Cleaning & Sanitizing Stuffer
- RCD P5.1 Preventative Maintenance Record

Name of Trainee	**Signature of Trainee**
My signature verifies that I have received and fully understand the training listed above.	
Birce Montagu	Birce Montagu
Leja Do	Leja Do
Liu Nor Shi	Liu Nor Shi
Rosylin Per	Rosylin Per

All employees listed (and as indicated on the Training Schedule) must receive the training prior to starting preventative maintenance job duties. If an employee is not present for the training session they must be trained upon their return to work.

Deviations:	**Corrective Actions:**
Leja Do didn't pass the assessment	She was re-trained immediately. Leja took the assessment again and passed. Oct. 13/07

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EXAMPLE 8

Preventative Maintenance & Calibration Training Assessment

XYZ Food Facility	Preventative Maintenance & Calibration Training Assessment	
	Written By: A.M. Garay	Code: RCD T5.2

Name: _____ Date: _____

Topic: Preventative Maintenance and Calibration Training

Answer the following True or False questions:

1. Pits and cracks in equipment, deteriorated gaskets and worn belts can allow places for bacteria to hide and grow _____
2. Excessive grease used during maintenance could get into food products _____
3. Equipment parts found in food can be a source of customer complaints, can cause broken teeth, and are sometimes even swallowed _____
4. Poorly maintained equipment can be a source of physical or chemical contamination or can provide areas for microbiological growth _____
5. The manufacturer's manual is a good source of recommendations for preventative maintenance of the machine _____
6. MSDS sheets can be found in the maintenance shop office _____

Passed (4/6) Y _____ **N** _____ **Trainer** _____

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EXAMPLE 9

Preventative Maintenance & Calibration Verification Procedure

XYZ Food Facility	Preventative Maintenance and Calibration Verification Procedure	
	Written By: L. Montagut	Code: SOP V5

Who:	When:
Food Safety Coordinator	Monthly

What:

Verification of preventative maintenance and calibration records:

1. Review the previous month's records, since the last verification, to ensure that all the tasks were completed as scheduled
   - Review the documentation to ensure it is complete and that:
     - Mistakes have been crossed through with a single stroke and that pencil and liquid paper have not been used
     - All deviations and corrective actions are recorded on the record and that the corrective actions were appropriate
     - Records are signed and dated by the designated employee
     - No blank spaces were left on the record, "N/A" was recorded if necessary
     - No evidence of falsified entries
     - If food safety may have been compromised, affected items were put on Hold and a Food Safety Assessment was conducted
     - If there were repeat deviations, a root cause analysis was conducted

Verification of the preventative maintenance and calibration procedures:

2. Bring the procedure with you and meet with the designated employee
3. Observe the designated employee performing the tasks as written in the procedures from P5
4. Upon completion of the verification of Preventative Maintenance & Calibration records and procedures, record all deviations and corrective actions before signing and dating the RCD V5 Preventative Maintenance & Calibration Verification Record

Deviations:	Corrective Actions:	Records:
Records are incomplete	• Investigate why the record was not complete • Retrain the employee and record the training	RCD V5 Preventative Maintenance & Calibration Verification Record
Employee not doing what is written in the procedure	• Retrain employee on the proper procedure and record the training • The Food Safety Coordinator may consider revising the procedure to reflect what personnel are doing if it will not compromise food safety	
If food safety may have been compromised	• Inform Area Supervisor. Follow Hold Procedure SOP P3.2.1.	
If deviation is recurring	• Perform a root cause analysis • If necessary, retrain employee, remove employee from these duties and/or begin the disciplinary action process • Record training	

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EXAMPLE 10

Preventative Maintenance & Calibration Verification Record

XYZ Food Facility	Preventative Maintenance and Calibration Verification Record	
	Written By: L. Montagut	Code: RCD V5

Who: Food Safety Coordinator

When: Monthly

What: Observe that preventative maintenance & calibration personnel are following the preventative maintenance and calibration procedures as written and that the corresponding records are being completed appropriately and are up-to-date

✓: Completed X: not completed Record any deviation(s)/corrective action(s) in the space provided

Date: October 11, 2008 **Verified by (sign):** H. Luisa

Procedure	**Procedures Followed** ✓ or X	**Records Completed Correctly** ✓ or X	**Deviations**	**Corrective Actions**
Calibration of the Dial Bimetal Coil Thermometer 124 BCT	X	✓	Designated trained employee is not following the thermometer calibration procedure according to the SOP Ps.124 BCT Food Safety was not compromised as the thermometer had not been used.	Employee was re-trained on Oct.11/08. Training was recorded on RCD Ts.1 Preventative Maintenance & Calibration Training Record.
Maintenance of the Stuffer - ST765	✓	✓		
Calibration of the pH meter 324 PH	✓	✓		
continued…				

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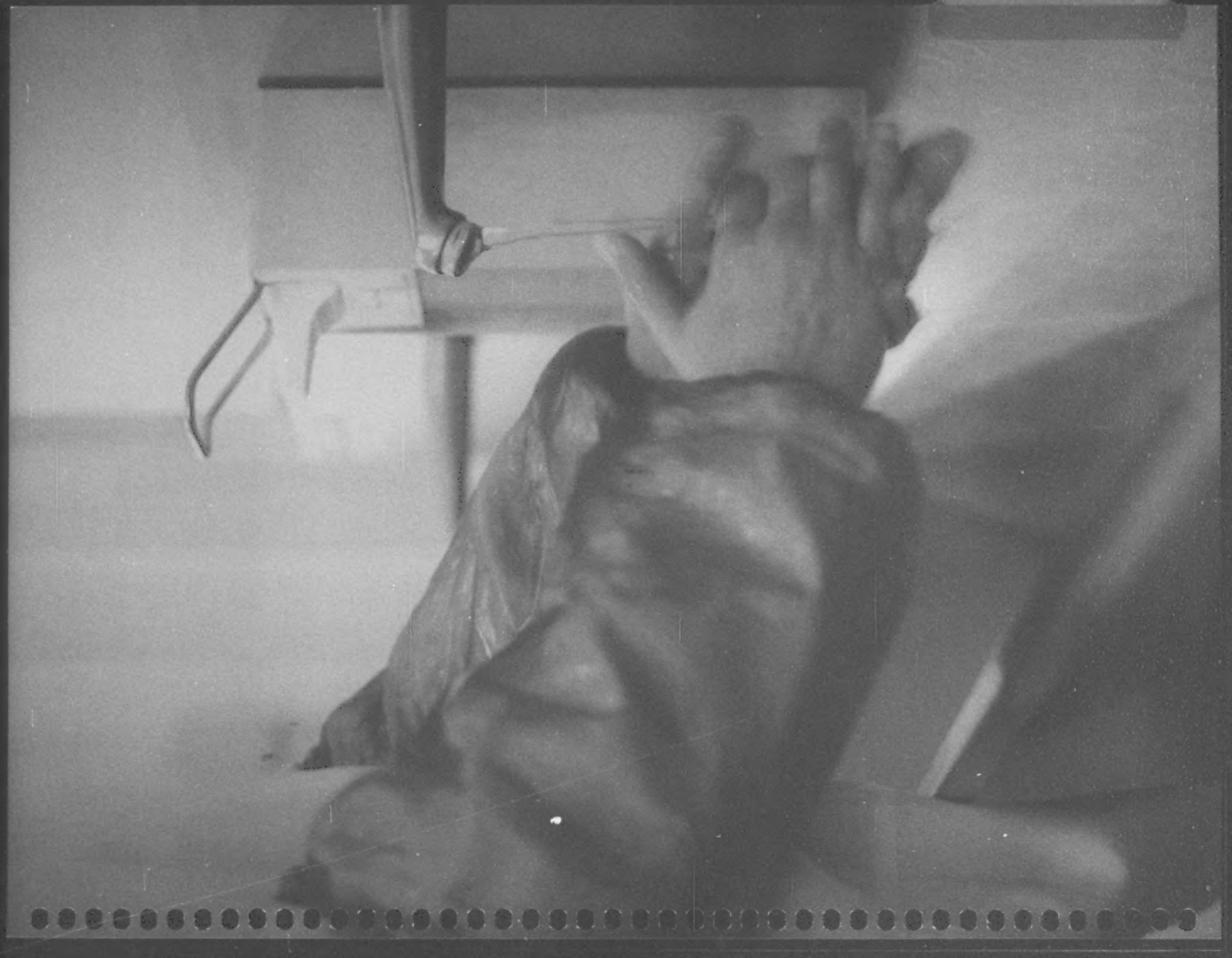

Pest Control

Why is it Important to Have a Pest Control Program?

Pests (e.g. birds, insects and rodents) can contaminate food, ingredients, processing aids, packaging materials and food contact surfaces. Developing and implementing an effective pest control program can reduce potential hazards and minimize contamination that can be caused by pests.

Pests in or around your facility can lead to contamination from droppings, larvae and dead insects or animals or their parts. Your pest control program needs to address frequent inspection of your facility (inside and outside) to ensure that it is free of pests. If pests or pest activity is found, steps should be in place to control the occurrence and prevent possible contamination of your facility and products.

Pest control chemicals can cause contamination if they are not used according to the manufacturer's instructions. Pest control chemicals should be applied after production and away from products, ingredients, processing aids, packaging materials and food contact surfaces and should be stored in a designated secured area and handled only by licensed individuals.

A written pest control program should include procedures to conduct facility inspection, pest removal and steps for pest control chemical application to prevent contamination of your facility and products.

P6 Pest Control

Pest Control P6.1

Written pest control procedures and corresponding records are in use to ensure that effective controls are in place to prevent pests from entering and infesting the facility. The procedures include:

- Instructions for visual inspection of the facility exterior and interior to detect pests and their activity
- Instructions for inspecting all pest control devices
- Instructions for pest removal and chemical application
- A facility schematic which shows locations of all pest control devices identified by a unique code
- A list of pest control chemicals used in the facility and a log of pest control chemical application

The person designated to apply pest control chemicals is licensed under the *Pesticides Act*.

Pest control chemicals are registered under the *Pest Control Products Act*.

Pest devices include rodent traps, bait station, glue boards, insect lights, bird deterrents, etc.

Suggestions to Meet the Standard

Put controls in place to protect against entry and harbourage of pests, for example:

- Place pest traps at appropriate locations inside and outside the facility (e.g. close to every door)
- Ensure all exterior traps are secure (e.g. to the wall, floor, etc.)
- Consider protecting traps against damage
- Install light traps in areas where flying insects may be a problem (refer to your pest control technician for placement advice)

Pest control programs can be done in-house or contracted out to a pest control company.

For in-house pest control program

Develop pest control procedures (see Example 1)

- Include instructions for inspecting the exterior and interior of your facility for evidence of pests
    - For example, look behind racks for holes, droppings, dead insects, or any other indication of pest activity
- Include instructions for inspecting pest devices to ensure they are operating properly and are notdamaged
    - It is helpful to have a label on the wall to indicate the location of traps
    - Labels or cards can be placed in each trap which can then be dated and initialled during each inspection
- Include instructions for removing pests if they are found
- Include instructions for applying pest control chemicals
- Ensure your procedures do not cause cross-contamination, e.g. pest control chemicals must not be applied during processing, and must not come into contact with food, ingredients processing aids and packaging materials
- Ensure that all doors and windows leading to the outside remain closed or screened at all times to keep pests (e.g. birds, insects and rodents) out of the facility

P6 Pest Control

Suggestions to Meet the Standard

Develop a schematic diagram of the facility showing the locations of all pest traps inside and outside of the facility (see Example 3)

Create a pest control chemical usage log (see Example 4)

- The usage log should document:
  - The type of pest control chemical used
  - Date, initial, time, location and person applying the pest control chemical
  - The amount of pest control chemical used
- Remember that all pest control chemicals that are used must be registered under the *Pest Control Products Act* and safe for use in food processing facilities and the employee that applies pest control chemicals must be licensed to do so
- Refer to standard P2.6 Chemical Control for handling and storage requirements of pest control chemicals
- Depending on your product type, pest control chemicals may be limited to use only outside of the facility. Check applicable regulations to ensure that chemicals can be used inside the facility.

For contracted pest control services

- Ensure the pest control company provides the following:
  - Procedures for inspection performed by the pest control company's service technician
  - Copies of current valid pest control licenses for each service technician assigned to the facility
  - Facility schematic with current locations of each pest control device used inside and outside the facility
  - Completed pest control records with deviations and corrective actions that are clear and legible after each inspection. These records should be reviewed, signed and dated by a designated facility employee. The designated facility employee should review the records to ensure deviations were recorded and the corrective actions were appropriate, completed and recorded.
  - MSDS for pest control chemicals, usage log and associated records
- Ensure that the pest control service technician follows your visitor/contractor policy for Personnel. See P1.1 Personal Practices for more information.

Develop pest control records for monitoring your pest control program (see Example 2)

- A separate record can be created for contracted pest control or you can sign off records provided by the pest control company

T6 Pest Control

Pest Control Training T6

Written procedures and corresponding records are in use for training on the pest control program. The procedures identify:

- Personnel who require training
- The trainer
- Training material used
- Frequency of training
- Assessment method to confirm the training is understood

Training is provided prior to starting pest control job duties, and whenever changes are made to the pest control program.

Refresher training is provided at minimum once per year.

Suggestions to Meet the Standard

Develop a training procedure (see Example 5)

- Include instructions to ensure all the appropriate personnel are present for training (e.g. cross-reference training list, training schedule and up-to-date employee lists)
- Training material may be different between facilities conducting in-house pest control and facilities using a contracted pest control company or a combination of both

For in-house pest control programs

- Additional training material maybe required if pest control is done in-house. Personnel should be trained on the P6 procedures, conducting inspections, handling, preparing and applying pest control chemicals, replacing pest devices when they are missing or damaged and removing pests.
- Training material that can be used to support in-house pest control training includes:
    - Procedures developed in P6 Pest Control
    - OMAFRA's *Advantage GMP* Training Kit – Module 5: Pest Control
    - Hands-on demonstration/practice
    - Videos/visual aids
    - MSDS Sheets and instructions of usage for pest control chemicals used at the facility, for the licensed individual
- The person designated to apply pest control chemicals should be licensed under the *Pesticides Act*. Include the license in your training records.

For contracted pest control services

- Contractors should provide proof they are trained, qualified and licensed for the work they will be doing
- Your facility will provide training on any relevant practices such as your facility traffic patterns, personnel practices, production schedules, etc.

T6 Pest Control

Suggestions to Meet the Standard

- Training material that can be used to support pest control training if a pest control company is selected:
    - Procedures developed in P1 Personnel, P6 Pest Control
    - Facility schematic, traffic flow, facility tour
    - Production Schedules

Develop corresponding records for training material presented (see Example 6)

- Training records list who is in attendance, the date the training took place, the topic, the material used and the name and signature of the trainer
- The training records have space for employees or pest control technicians to initial/sign to indicate they received the training

Develop a method to prove personnel who were trained understood the training material (see Example 7)

- For example; a written or verbal test, observe the task being performed or job shadowing for a probation period

Develop a training schedule

- The training schedule should include the employees or pest control technician (and the alternate backup) designated to conduct pest control activities and their positions.
- The training schedule is predetermined and indicates who needs to be trained and how often refresher training will occur
    - How often you have refresher training depends on your commodity, employee turnover rate and/or season of production e.g. once per year, once per season, or every six months
- It may be easier to have one schedule for all 9 training standards (see Example 9 in P1 Personnel)

Remember to include corrective actions in procedures (e.g. documenting employees absent from training and/or reassessing training materials if training is not effective)

All 9 GMP sections require training procedures and records be developed and used. You may consider combining training procedures and records for some or all 9 GMP sections. If training procedures are combined, be sure to include details from all sections in the combined procedure (e.g. materials used to train each section, detailed schedule).

V6 Pest Control

Pest Control Verification V6

Written procedures and corresponding records are in use for pest control verification, which confirms at pre-determined intervals that:

- Pest control activities are being performed as written
- Records are completed properly

Suggestions to Meet the Standard

Develop verification procedures

- To verify the pest control program the most common method is to observe the task being performed and record whether the task is performed as written (see Example 8)
    - Other verification methods include:
    - Interviewing the employee regarding the procedures and corrective actions for which they are responsible e.g. ensuring that the pest control employee is aware of what to do if a pest is found
    - The verifier performs the activities written in the procedures and compares the findings to those of the designated employee. (NOTE: this method may only be carried out if the verifier and the designated employee perform the activities at the same time or within a minimal period of time from one another, so that the conditions of the activities are similar.)
- To verify that pest control records are being properly completed all the records, since the last verification, should be reviewed. If no deviations are found, the number of records being verified can be decreased. Verification of the records is done to ensure that:
    - Mistakes have been crossed through with a single line and initialled by the designated employee and that liquid paper has not been used
    - Documents have been completed in permanent ink (no pencil)
    - All records are signed and dated by the designated employee
    - No blank spaces have been left on the record, if necessary "N/A" was recorded
    - The activities have been carried out at the appropriate frequency
    - There is no evidence of falsified entries
    - All deviations and corrective actions are documented and are suitable
    - If food safety may have been compromised, affected items were put on Hold and a Food Safety Assessment was conducted
    - If a deviation was recurring, a root cause analysis was conducted

Develop a pest control verification schedule based on the risk of the activity being performed

- If there is a high employee turnover rate in the facility, it might be necessary to increase the frequency of the verification to ensure that the employee responsible for the pest control activities are performing them according to the written procedures
- Generally, if the activity occurs daily then the verification would occur weekly, if the activity occurs weekly then the verification would occur monthly, and so on

V6 Pest Control

Suggestions to Meet the Standard

Develop corresponding records for pest control verification procedures, remember to include corrective actions in all procedures and records (see Example 9)

- A separate verification record can be created from the pest control record or a column/space right on the pest control record can be created for the verifier to record his/her findings and to date and sign
- All procedures and records that relate to the pest control program should be listed on the verification record

EXAMPLE 1

Pest Control Procedure

XYZ Food Facility	Pest Control Procedure	
	Written By: Bob Love	Code: SOP P6.1.1

Who: Licensed Pest Control Operator and/or Designated Trained Employee (replacement of pest control chemicals must be done by the licensed pest control operator)

When:
- Weekly
- As required when pest activity is reported by personnel

What:

1. While inspecting traps throughout the facility, inspect all areas including the outside for evidence of pests. Look behind equipment, racks, shelves, etc. for:
   - Droppings
   - Egg casings
   - Dead insects
   - Nesting materials
   - Holes in exterior walls or gnaw marks in the walls or other materials such as packaging
   - Grease markings
2. Record and describe all evidence of pest activity on RCD P6.1.1 Pest Control Record

Rodent Traps

3. Open and inspect all exterior and interior rodent traps, check:
   - For evidence of pest activity on rodenticide or test blocks (only in exterior traps)
   - Traps are secured to the ground (exterior traps only)
   - Traps are in the proper location according to the RCD P6.1.2 Pest Control Plant Schematic
   - Traps are operational and the trap is positioned so the opening is not blocked
     - immediately replace damaged or missing traps
   - Traps are clean and free of carcasses, rodent hairs and droppings
     - if a carcass is found it must be disposed of immediately in the main garbage outside of the building. Put any potentially affected food, ingredients, processing aids and/or packaging materials on Hold. Inform the Food Safety Coordinator to conduct a "Food Safety Assessment" to determine if food safety was compromised
4. Replace the rodenticide if it is nearly finished or finished. This must be done by the licensed pest control person. To replace rodenticide:
   a. Wear disposable gloves before handling outdoor rodent trap and rodenticide
   b. Open outdoor rodent trap
   c. Follow instructions on label to handle and replace rodenticide
   d. Close outdoor rodent trap
   e. Record rodenticide usage on the Pest Control Chemical Usage Log (RCD P6.1.3) including the name and amount used, the area where the chemical was applied, the chemical used, your initials
5. When inspection of each trap is complete, date and initial the card inside each trap

Insect Light Traps

6. Using the step ladder located in the shipping office, inspect all insect light traps, check:
   - Traps are in the proper location RCD P6.1.2 Pest Control Plant Schematic
   - Traps contain minimal insect debris
7. Replace the glue board in the light trap
8. When inspection of each light trap is complete, date and initial the card inside each trap

After Inspection

9. Complete RCD P6.1.1 Pest Control Record with date, name and signature. Record and describe all deviations and corrective actions.

EXAMPLE 1 (continued)

Pest Control Procedure

XYZ Food Facility	Pest Control Procedure	
	Written By: Bob Love	Code: SOP 6.1.1

Deviations:	Corrective Actions:
Pests (rodents) are observed in the plant	Put all potentially affected items on Hold. Inform the Food Safety Coordinator to conduct a Food Safety Assessment. Record occurrence and take necessary corrective actions. Corrective action may include: investigating possible sources of pest entry and sealing doors and windows or placing screens on doors/windows and/or contacting professional pest control company
Missing pest trap or trap in wrong location	Replace missing pest trap
Birds observed in the plant	Put all potentially effected items on Hold. Inform the Food Safety Coordinator to conduct a Food Safety Assessment. Record occurrence and take necessary corrective actions. Corrective action may include: investigating possible sources of pest entry and sealing doors and windows or placing screens on doors/windows and/or contacting professional pest control company.
Food safety may have been compromised	Inform Food Safety Coordinator. Follow Hold Procedure SOP P3.2.1.
Deviation is recurring	Inform Supervisor who will perform a root cause analysis

Records:
Pest Control Record – RCD P6.1.1 Pest Control Plant Schematic – RCD P6.1.2 Pest Control Chemical Usage Log – RCD P6.1.3

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EXAMPLE 2

Pest Control Record

XYZ Food Facility	Pest Control Record	
	Written By: Bob Love	Code: RCD P6.1.1

Who: Licensed Pest Control Operator and/or Designated Trained Employee

When: Weekly or as required when pest activity is reported by personnel

Name: Dave James

Facility Pest Activity

Plant Area	Pest Activity/Deviations (Type of rodent/insect)	Corrective Actions
Chemical Storage	Flies observed in chemical room.	Fly light trap and door seal need to be replaced. Work order entered to fix door seal and fly light. Door seal Sept. 29/08, fly light replaced Oct. 1/08.

Outdoor Rodent Traps

Trap#	Rodent Activity or Other Deviations (yes or no) If yes, describe	Corrective Actions
P1	N	
P2	N	
P3	N	
continued...		

Indoor Pest Traps

Trap #	Rodent Activity or Other Deviations (yes or no) If yes, describe	Corrective Actions
*1	N	
*2	N	
*3	N	
continued...		

Insect Light Traps

Trap #	Rodent Activity or Other Deviations (yes or no) If yes, describe	Corrective Actions
I1	N	
I2	Y-flies	Insect light trap #2 needs to be replaced. Work order (007) entered to replace unit on Sept 29th, new unit installed Sept 31st.
I3	N	

Signature: Dave James Date: September 29, 2008

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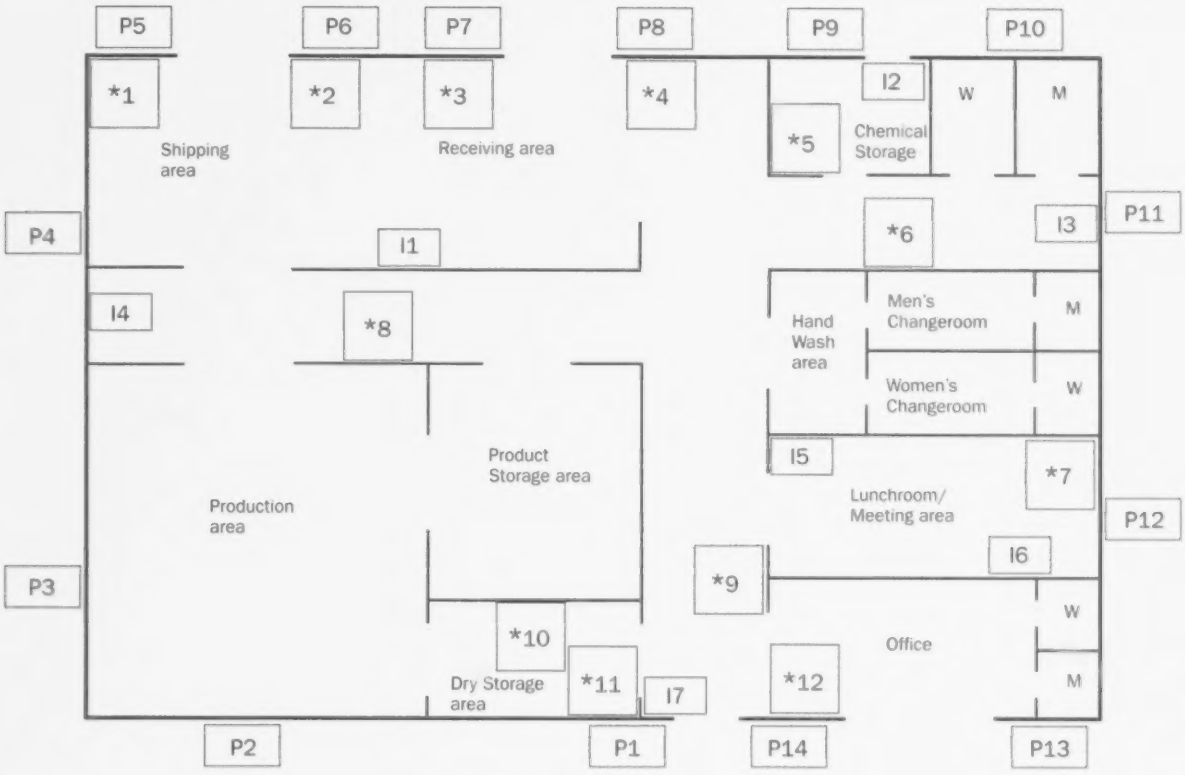
EXAMPLE 3

Pest Control Facility Schematic

XYZ Food Facility	Pest Control Facility Schematic	
	Written By: Bob Love	Code: RCD P6.1.2



LEGEND:

P	Outdoor Rodent Trap
I	Insect Light Trap
*	Indoor Rodent Trap

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EXAMPLE 4

Pest Control Chemical Usage Log

XYZ Food Facility	Pest Control Chemical Usage Log	
	Written By: Bob Love	Code: RCD P6.1.3

Date	Time	Name	Area	Chemical Used	Amount/ Application Rate	Initials

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EXAMPLE 5

Pest Control Training Procedure

XYZ Food Facility	Pest Control Training Procedure	
	Written By: B. Love	Code: SOP T6

Who:
Food Safety Coordinator, Pest Control Operator or trained designate will deliver training to employees who will be responsible for pest control activities

When:
- Prior to designated pest control personnel, performing pest control duties
- Yearly refresher training
- When changes are made to the program
- As necessary if deviations are found

What:
1. Ensure all appropriate trainees are present by cross-referencing the Master Training Schedule and Human Resources, new hire lists

Deliver training in two parts:

Part 1 – In class, teach P6 pest control procedures and the associated records
2. Present video presentation on Bird, Insect and Rodent Pests
3. Present OMAFRA's *Advantage GMP* Training Kit – Module 5: Pest Control
4. Present and explain P6 Pest Control procedures and records
5. Present MSDS sheets for pest control chemicals used at the facility

Part 2 – on the floor, using hands on training teach P6 Pest Control procedures and records
6. Take P6 Pest Control procedures and records with you, taking trainees through the facility, demonstrating how to follow the procedures and completing the records. Alternate between the trainer and the trainees performing tasks
7. After both parts of training have been completed all participants must complete the pest control training quiz and receive a passing mark of 4 out of 5 before conducting pest control activities
8. When training is complete record your name (trainer), signature, a description of the training given, and the date of the training on RCD T61.1 Pest Control Training Record and have trainees record their name and signature
9. Ensure that a valid license under the Pesticides Act is on file for all employees who will be responsible for pest control chemical application.

Deviations:	Corrective Actions:	Records:
Employee is absent from training	Train the employee before they start/return to work	RCD T6.1 Pest Control Training Record
Employee did not pass the Pest Control Training Assessment	Re-train employee and re-administer Pest Control Training Assessment until passing grade is achieved	
License under the Pesticides Act is invalid, or missing	Do not permit employee to apply pest control chemicals until a valid license is obtained	RCD T6.2 Pest Control Training Assessment

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EXAMPLE 6
Pest Control Training Record

XYZ Food Facility	Pest Control Training Record	
	Written By: B. Love	Code: RCD T6.1

Date of Training Session: June 10, 2008

Trainer's Name: Dave Roach

Signature of Trainer: Dave Roach

Training materials presented:
- Video presentation on Bird, Insect and Rodent Pests
- OMAFRA's *Advantage GMP* Training Kit – Module 5: Pest Control
- P6 Pest Control procedures and records P6
- MSDS sheets for pest control chemicals used at the facility
- Pest Control Training Assessment (RCD T6.2)

Name of Trainee (please print clearly)	Signature of Trainee
My signature verifies that I have received the training listed above and that I fully understand the training I received.	
Sean Best	Sean Best
Tahir Sheth	Tahir Sheth

All employees listed (and as indicated on the Training Schedule) must receive the training prior to starting pest control job duties. If an employee is not present for the training session they must be trained upon their return to work.

All employees responsible for pest control chemical application, have a valid license on file? (circle one) (Yes) No

Deviations:	Corrective Actions:

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EXAMPLE 7

Pest Control Training Assessment

XYZ Food Facility	Pest Control Training Assessment	
	Written By: B. Love	Code: RCD T6.2

Name:_____ Date:_____

1. During plant inspection inside the facility you come across two damaged and one missing pest trap. What should you do?

2. Name three types of pests?

Answer the following questions as either being T – true or F – false:

3. The person applying pest control chemicals at this facility must obtain a Pest Control license (T or F)

4. When checking pest traps it is required that you record the date the trap was inspected (T or F)

5. Rodent Traps are checked monthly (T or F)

Mark: /5

Passing mark is 4/5

Passed: Yes or No Trainer: _____

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EXAMPLE 8

Pest Control Verification Procedure

XYZ Food Facility	Pest Control Verification Procedure	
	Written By: Bob Love	Code: SOP V6

Who: Food Safety Coordinator **When:** Monthly

What:

Verification of Pest Control Records

1. Review the previous month's records, since last verification, to ensure that all the tasks were completed as scheduled.
   - Review the documentation to ensure it is complete:
   - Mistakes have been crossed through with a single stroke and that pencil and liquid paper have not been used
   - All deviations and corrective actions are recorded on the record and that the corrective actions were appropriate
   - Records are signed and dated by the designated employee
   - No blank spaces were left on the record, "N/A" was recorded if necessary
   - No evidence of falsified entries
   - If food safety may have been compromised, effected items were put on Hold and a Food Safety Assessment was conducted
   - If there were repeat deviations, a root cause analysis was conducted
2. Review Pest Control binder/file in Maintenance office to ensure that:
   - Licenses to apply pest control chemicals for all delegated personnel are on file and are current
   - MSDS sheets for each pest control chemical used in the facility are on file and are current

Verification of Pest Control Procedures

3. Bring the P6 procedures and RCD P6.1.2 Pest Control Plant Schematic with you and meet with the designated employee
4. Observe the designated employee performing the tasks as written in the procedures from P6
5. While verifying procedures, ensure the locations of the pest traps (rodent and insect) are identified on the RCD P6.1.2 Pest Control Facility Schematic
6. Upon completion of the verification of Pest Control records and procedures, record all deviations and corrective actions before signing and dating the Pest Control Verification Record RCD V6

Deviations:	**Corrective Actions:**	**Records:**
Records are incomplete	• Investigate why the record was not complete • Retrain the employee and record the training	RCD V6 Pest Control Verification Record
Employee not doing what is written in the procedure	• Retrain employee on the proper procedure and record the training • The Food Safety Coordinator may consider revising the procedure to reflect what personnel are doing if it will not compromise food safety	
If food safety may have been compromised	• Inform Area Supervisor. Follow Hold Procedure SOP P3.2.1.	
If deviation is recurring	• Perform a root cause analysis • If necessary, retrain employee, remove employee from these duties and/or begin the disciplinary action process • Record training	

EXAMPLE 9
Pest Control Verification Record

XYZ Food Facility	Pest Control Verification Record	
	Written By: B. Love	Code: RCD V6

Who: Food Safety Coordinator
When: Monthly
What: Observe the designated trained employee while he/she carries out pest control activities to ensure they are following the pest control procedures as written and that corresponding records are being completed appropriately and are current.

A "✓" indicates that the criteria has been met
An "X" indicates that the criteria have not been met.
Record any deviation(s) and corrective action(s) on this record

Name (print):	Signature:	Date:

Procedure	Procedures Followed ✓ X	Records Completed Correctly ✓ X	Deviations	Corrective Actions
Pest Control Procedure SOP P6.1.1				
Pest Control Record RCD P6.1.1				
Pest Control Chemical Usage Log RCD P6.1.3				
	✓ X		Deviations	Corrective Actions
Pest Control Plant Schematic RCD P6.1.2 All traps identified?				
Licenses present and valid?				
MSDS sheets present and current?				

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Recall

Why is it Important to Have a Recall Program?

All processing facilities regardless of size, should have a recall program in place so in the event of a recall, suspect product can be removed from the market quickly and effectively. Recalls are carried out by food processors and they are responsible for the implementation of the recall program and verification of its effectiveness.

A recall can be initiated for several reasons, such as customer complaints, reports of illness and or injury, or product tampering. All customer complaints should be reviewed and assessed to determine if food safety is the reason for the complaint and if the recall process should be initiated. Individual consumers look to the label, with the product name and ingredient list to avoid food they may be allergic to. If labels are incorrect, your customer could be put at risk. Undeclared allergens are also common causes of recalls.

The recall program ensures that all suspect products are accounted for and controlled to prevent or minimize food borne illness and injury to consumers. Having a product coding system, accurate labels, a recall coordinator, recall team and detailed procedures to contact authorities and customers, are all part of a recall program. Once the affected product has been identified and located, a decision will be made about its disposition (e.g. destroy it, bring it back for analysis, use it for rework). All recall activities should be documented.

The effectiveness of the recall program should be tested routinely in a process called "mock recall", which is similar to a "fire drill". During a mock recall, an established recall procedure shall be followed. A scenario describing a food safety problem with a finished product is described and the recall procedures are followed to assess its effectiveness in controlling all affected products. After this exercise the recall team should meet and discuss the outcome of the exercise, to identify areas for improvement and make any necessary changes to the procedures.

The recall program procedures include:

- Developing and implementing a product labelling and coding system
- Positions and contact information for the recall team
- Appointing a recall coordinator
- Identifying and controlling affected product
- Contacting authorities
- Contacting affected customers
- Documenting all recall-related activities
- Conducting a mock recall and ensuring its effectiveness

A recall program allows you to recall finished product. To take the recall program a step further, a traceability system can be implemented. An effective traceability system enables you to not only recall finished product, but also trace back through your process to ingredients, processing aids and packaging materials. In other words, foods, ingredients, processing aids and packaging materials can be followed through all stages of production, processing and distribution. If you are interested in implementing a traceability system in your facility consider implementing *Advantage HACCP Plus* (see Book 4 *Advantage HACCP Plus* for more information).

P7 Recall

Product Labelling P7.1

Written product labelling procedures and corresponding records are in use. The procedures include instructions to ensure that all finished products have been identified with a unique lot code and labels are accurate.

"Product coding" refers to a system for identifying products and separating them by production lots (batches). The system will assign a "lot code" to products.

Suggestions to Meet the Standard

Define your facility's production "lot" and develop product codes (see Example 1)

- Common ways to describe a production "lot" are:
  - Time frame (e.g. 30 minutes, 1 hour, date of production)
  - A set quantity of finished product (e.g. 250 cases)
- A unique code should be applied to every production lot. Depending on the lot size, the number and type of finished products manufactured and other factors, a combination of the following examples can be used to develop a coding system:
  - Production date
  - month/day/year
  - Julian date (when using this system, days of the year are numbered 1 to 365 in consecutive order, starting with January 1st (001) and ending with December 31st (365). In a leap year December 31st = 366.
  - Production line (e.g. 1, 2; A, B; allergen, non-allergen)
  - Product type (e.g. fresh, cured, ready to eat)
  - Expiry date ("best before" or "best if used by")

Develop a procedure for ensuring finished product is properly coded and labelled

- Include instructions to apply the unique product code to all finished products
- Include instructions to periodically check that the correct label is applied to all finished products including the correct product name and ingredient list

Develop product labelling records (see Example 2)

- Product labelling records should include scheduled checks that the correct product code and label was applied to all products
- Production logs and inventory documents should be developed and should list products with their associated lot code information to ensure items can be easily located in a recall situation (see Example 3 in this section for a Production Log and Example 2 in the P3 Handling section for an Inventory Record)

P7 Recall

Recall P7.2

Written recall procedures and corresponding records are in use. The procedures include:

- Instructions for identifying and controlling all affected product
- Instructions for contacting authorities and customers
- Instructions for conducting a mock recall
- Position and contact information for all recall team members

A mock recall is conducted at minimum, once per year.

Suggestions to Meet the Standard

Develop a Recall procedure and record (see Example 4 & 6)

Before initiating a recall

- A recall can be initiated for several reasons, such as customer complaints, reports of illness and or injury, or product tampering
- Microbial contamination of the product or undeclared allergens on the label are common causes of a recall
- Develop a Customer Complaints Record to keep a record of all complaints (see Example 7)
    - The nature of the complaint should be assessed and assigned a category: food safety or quality
    - All food safety-related complaints should be investigated and findings recorded either on the same record or on a separate one (e.g. Complaints Investigation Record")
    - The findings of the investigation will indicate whether a recall should be initiated or not

Recall

- A recall team is usually formed to facilitate conducting a recall by gathering relevant information more efficiently than if one person has to do it all. The person responsible for food safety in the facility is usually responsible for coordinating all recall-related activities ("Recall Coordinator"). The recall team includes at least one senior representative of the company and the Food Safety Coordinator. Depending on the size of the operation, staff from other departments (e.g. maintenance, sales, shipping and distribution, etc.) should be added to the recall team.
- The recall procedure should include the positions and contact information of all members of the Recall Team
- The recall procedure should allow timely and effective identification and location of affected products.
    - Important tools are:
    - An effective product coding system (see to P7.1 Product Coding)
    - A detailed production record that includes when products are manufactured (date, date/time), who is responsible for the production process at the time of manufacturing, accurate amounts produced per lot, and where the product went after manufacturing (e.g., finished product warehouse, rework, product on hold, "in-process", cooler) (see Example 3)

P7 Recall

Suggestions to Meet the Standard

    - A detailed shipping record that contains the exact amounts of each product by lot code that have been shipped and the names of the customers to whom it was shipped (see P2.2 Shipping for an example)
    - Up-to-date customer contact information should be stored on site and be easily accessible at any time
        - Information collected for each customer should include the name of the person responsible for product recall, address, phone number, fax number and email address. It's helpful to include an alternate customer contact.
- The recall procedures should include instructions for using the above tools to determine the lot code corresponding to the affected product
- Once the lot code corresponding to the affected product has been determined,
    - Use the production record to determine how much product was produced (include rework if any) with that lot code and where it was sent to after production
    - Check if any product is still in your facility
    - Use the shipping record to determine who the product was shipped to
- "Controlling" affected product means making a decision about what to do with it and proceeding accordingly
    - Once located, affected product should be properly labelled and isolated to prevent further distribution or cross-contamination of other products
    - A Food Safety Assessment should be conducted to decide disposition of affected product. For example, it could be destroyed or returned to the facility (if it has been shipped) for further testing and analysis.
- The recall procedure should also include specific instructions indicating who to notify, when, and what information should be provided
- In the event of a recall, the CFIA needs to be notified. Depending on the type of product, the Municipal Health Unit and/or OMAFRA may also need to be notified. Ensure that the contact information for all authorities in the recall program remains current.
    - When calling the CFIA, be prepared to provide all the required information (see Example 4). Check CFIA's website for the most up-to-date information.
- Develop a record (e.g. Notice of Recall) to use when notifying customers about a recall, which should have all relevant information about the recall (see Example 8)
- Keep a log of all actions taken during the course of the recall
- When a decision is made to initiate a recall, a food safety assessment may recommend stopping production to prevent the potential for more affected product to be produced and shipped from the facility
- Once a recall has been completed, the Food Safety Coordinator should investigate the root cause of the problem to prevent it from happening again

P7 Recall

Suggestions to Meet the Standard

Mock Recall

Develop a Mock Recall procedure (see Example 5)

- A mock recall is a method for testing the effectiveness of the recall program and is pre-scheduled at minimum once per year
- A mock recall is a scenario describing a food safety problem
    - An example of a scenario is:
        - "Our firm investigated a consumer complaint of metal contaminants found in product manufactured by our firm with Code HF 2 010 09"
- A mock recall will ensure that:
    - Contact information for members of the Recall Team is up to date
    - Contact information for all customers and government authorities is up to date
    - The effectiveness of the recall is calculated
- An effective mock recall should account for 100% of the affected product
- If the mock recall does not account for 100% of the affected product, the gaps or flaws in the procedures should be investigated and appropriate corrective actions taken
- To be considered successful, a mock recall should be completed in four hours or less

Develop corresponding mock recall records (see Example 6)

T7 Recall

Recall Training T7

Written procedures and corresponding records are in use for training on the recall program. The procedures identify:

- Personnel who require training
- The trainer
- Training material used
- Frequency of training
- Assessment method to confirm the training is understood

Training is provided prior to starting recall job duties and whenever changes are made to the recall program.

Refresher training is provided at minimum once per year.

Suggestions to Meet the Standard

Develop a training procedure (see Example 9)

- Include instructions to ensure all the appropriate personnel are present for training (e.g. cross-reference training list, training schedule)
- The training program for recall should address all standards within the section. You may provide separate training for personnel responsible for product labelling and those responsible for recall activities (e.g. Recall Team members)
- Some examples of training material that can be used for the recall program are:
    - Procedures developed in P7.1 and P7.2
    - OMAFRA's *Advantage GMP* Training Kit – Module 6: Recall
    - Reviews of previous mock recalls (e.g. identifying gaps in the procedures, assessing effectiveness of the recall)

Develop corresponding records for the training material presented (see Example 10)

- Training records list who is in attendance, the date that the training took place, the topic, the material used and the name and signature of the trainer
- The training records have space for employees to initial/sign to indicate that they received the training

Develop a method to assess and prove that employees who were trained understood the training material

- For example a written or verbal test or part of a mock recall can be performed (see Example 11)

P7 Recall

Suggestions to Meet the Standard

Develop a training schedule. The training schedule should include the employees (and the alternate backup) designated to conduct recall activities. It is helpful to include the employees' positions.

- The training schedule is predetermined and indicates who needs to be trained and how often refresher training will occur
- How often you have refresher training depends on your commodity, employee turnover rate and/or season of production (e.g. once per year, once per season, every six months)
- It may be easier to have one schedule for all 9 training standards (see Example 9 in P1 Personnel)

Remember to include corrective actions in procedures (e.g. documenting employees absent from training and/or reassessing training materials if training is not effective)

All 9 GMP sections require training procedures and records be developed and used. You may consider combining training procedures and records for some or all 9 GMP sections. If training procedures are combined, be sure to include details from all sections in the combined procedure (e.g. materials used to train each section, detailed schedule).

V7 Recall

Recall Verification V7

Written procedures and corresponding records are in use for recall verification, which confirms at pre-determined intervals, that:

- Product labelling activities are being performed as written
- Product coding and mock recall records are completed properly

Suggestions to Meet the Standard

Develop verification procedures (see Example 12)

- To verify product coding activities the most common method is to observe the task being performed and record whether it is performed as written. Another option is to interview the employees regarding the product coding procedures for which they are responsible.
- To verify that product labelling, and mock recall records are being properly completed, all the records since the last verification should be reviewed. For product labelling, if no deviations are found, the number of records being reviewed can be decreased. All mock recall and recall records should be verified. Verification of the records is done to ensure that:
    - Mistakes have been crossed through with a single line and initialled by the designated employee and that liquid paper has not been used
    - Documents have been completed in permanent ink (no pencil)
    - All records are signed and dated by the designated employee
    - No blank spaces have been left on the record; if necessary, "N/A" was recorded
    - The activities have been carried out in the appropriate frequency
    - There is no evidence of falsified entries
    - All deviations and corrective actions are documented and suitable
    - If food safety may have been compromised, affected items were put on Hold and a Food Safety Assessment was conducted
    - If a deviation was recurring, a root cause analysis was conducted

Develop a recall verification schedule

- Product labelling occurs every time production is running. Generally, if the activity (e.g. product coding) occurs daily then the verification would occur weekly, if the activity occurs weekly then the verification would occur monthly, and so on.
- Mock recalls will occur annually at minimum and records can only be verified after a mock recall has been conducted
- If there is a high employee turnover rate in the facility, it might be necessary to increase the frequency of the verification to ensure that the employees responsible for product coding or mock recall activities are performing them according to the written procedures

T7 Recall

Suggestions to Meet the Standard

Develop corresponding records for recall verification procedures. Remember to include corrective actions in all procedures and records.

- Separate verification records can be created or monitoring and verification records can be combined. For example, create a column or space right on the product coding and mock recall records for the verifier to record his/her deviations and corrective actions and to date and sign. (see Example 2, 6 and 7)

EXAMPLE 1

Product Labelling Procedure

XYZ Food Facility	Product Labelling Procedure	
	Written By: Jeannie Niro	Code: SOP P7.1.1

Who: Packaging Operator

When/What:

1. The packaging operator determines the code and label for the product and sets up the Videojet printer before production starts every shift, and when the product changes.

   The lot code is given by two letters followed by six numbers:

   HF 2 010 09

   - The first two letters correspond to the product itself ("Hanks Famous")
   - The first number corresponds to the production shift (2nd shift)
   - The next three numbers correspond to the Julian date (January 10th)
   - The last two numbers indicate the year of production (2009)

   Table of products and corresponding codes

Product	Code
Hanks Famous Pancakes Plain	HF
Happy Berry Mix Pancakes	HB
Mom's Maple Recipe Pancakes	MM

   The code is applied by the Videojet printer on the side of the retail carton

2. Ensure that the Videojet printer is working properly at the start of each product run, after each break and at the end of every product run. Remove three consecutive packages from the line and examine the product code and label to ensure it is correct for the product (name and ingredients), legible and in the correct location. Record all findings and complete RCD P7.1.1 Product Labelling Record.

Deviations:	Corrective Actions:	Records:
Incorrect code or label	Immediately stop the line and contact the Production Supervisor. Locate all incorrectly coded or labelled product and place on hold. Reset the printer, re-package all affected product and pass product through the printer.	RCD P7.1.1 Product Labelling Record
Labels not legible	Immediately stop the line and contact the Production Supervisor. Locate all illegible product and place on hold. Recalibrate the printer, run three test labels through. Re-package all affected product and pass product through the printer.	
Food safety may have been compromised	Inform Area Supervisor. Follow Hold Procedure SOP P3.2.1.	
Deviation was recurring	Inform Supervisor who will ensure a root cause analysis is performed	

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EXAMPLE 2

Product Labelling Record

XYZ Food Facility	Product Labelling Record	
	Written By: Jeannie Niro	Code: RCD P7.1.1

Who: Packaging Operator **Date (mm/dd/yy):** 05/27/09

Time	Product	Code	Code Correct for Product YES/NO	Code and Label Legible YES/NO	Code in Correct Location YES/NO	Name of Product Correct YES/NO	Ingredient List Correct for Product YES/NO	Initial	Deviation? YES/NO (if Yes number the deviation and complete the table at the bottom)
9:01 am	Hanks Famous Pancakes Plain	H/F 1 147 09	Yes	No	Yes	Yes	Yes	RT	Yes—#1

Deviations:	Corrective Actions:
#1 The label machine was not printing the codes clearly	Stopped the line. Called my Supervisor. Located all product with illegible codes and put on hold. Reset the machine and ran 3 test packages through. The machine then worked fine. Re-package all affected product and pass product through the printer.

Verification (Daily):

Production Supervisor Signature: _____ Date: _____ Time: _____

Deviations: _____

Corrective Actions: _____

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EXAMPLE 3
Production Log

XYZ Food Facility	Daily Production Log	
	Written By: Jeannie Niro	Code: RCD P7.1.2

Date: March 2, 2009 **Operator Name:** Pete Crepe

Product Name: Hanks Famous Pancakes Plain **Lot code:** HF06109

Approximate weight/pancake: 75g **Best Before:** March 16, 2009

Ingredients	Supplier	Lot Code	Recipe	Actual amount used	Initials
Liquid Pancake Mix	Prep room	LP0961	120 litres	120 kg	PC
Oil for grill	Easy oven	J8483	1 litre	1 litre	PC
Wax wrap	Wrap It	Jan 12/09	N/A	N/A	PC
Retail carton	Box A. Co.	R012	N/A	160 units	PC
Master carton	Box A. Co	M001	N/A	10 boxes	PC

# of retail cartons produced	# of pancakes produced and weight	Amount of Liquid pancake leftover	Amount of Finished Product Waste	Initials
158 cartons	1580 pancakes 118.50 kg	225 ml	1,275 g	PC

Signature: Pete Crepe

Verification (Daily):

Production Supervisor Signature: _____ Date: _____ Time: _____

Deviations: _____

Corrective Actions: _____

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EXAMPLE 4
Recall Procedure

XYZ Food Facility	Recall Procedure	
	Written By: Jeannie Niro	Code: SOP P7.2.1

Who: Recall Team

Position	Name	Work phone	Home phone
Recall Coordinator/Food Safety Coordinator	Jeannie Niro	519-888-8888	519-555-6666
Owner/Alternate Recall Coordinator	Tom Hark	519-888-8887	519-444-2222
Production Supervisor	Jim Stainton	519-888-8886	416-222-3333
Shipping Supervisor	John McGuire	519-888-8884	905-111-7777

When: When the food safety coordinator is informed of a food safety complaint, adverse test result or there is a food safety incident in the facility

What:

1. Initiate Recall

- The Recall Coordinator will assemble the Recall Team
- The Recall Coordinator will provide information regarding the affected product and corresponding lot code
- The Customer Complaint and Investigation Record will be shared with the Recall Team if applicable
- The Recall Team will assess the problem and make the decision to initiate a recall
- The Recall Coordinator is responsible for recording all activities in the recall log

2. Locate Affected Product

- The Production supervisor will determine from the production log:
  - The exact quantities of product produced under the affected lot code
  - Where the product was sent after production (e.g. finished product warehouse, in-process room, re-work, product on hold)
- If the product went to re-work, then the Production Supervisor will identify other lot codes that may be affected and determine the amounts produced and where they went
- All product in the "in-process" room will be immediately labelled with a yellow ***"HOLD"*** label and transferred to the designated storage area until a decision is made about its disposition (follow Hold Procedure SOP P3.2.1)
- The Shipping supervisor will determine:
  - How much product is still in the warehouse
  - How much product has been shipped
  - The contact information of all customers that the product was shipped to
- All affected product remaining in the warehouse will be immediately labelled with a yellow ***"HOLD"*** label and transferred to the designated storage area until a decision is made about its disposition

3. Contact CFIA

- The Recall Coordinator will contact the CFIA Area Recall Coordinator for Ontario at 416-665-5049 (8h00 to 23h00)
- The following information will be provided to CFIA when reporting the recall:
  - A detailed description of the nature of the problem
  - The name, brand, size, lot code(s) affected
  - Details of complaints received and any reported illnesses
  - Who the product was distributed to
  - When the product was distributed (specific dates)
  - Label(s) of the product(s) to be recalled
  - The total quantity of affected product
  - The name and telephone number(s) of the Recall Coordinator (as the contact with CFIA)

EXAMPLE 4 (continued)

Recall Procedure

- CFIA will assign a class to the recall based on risk of the product harming the general public:
  - **Class I** – life threatening (requires a news release)
  - **Class II** – not life threatening:
  - **Class III** – not likely to result in any health consequences

4. **Contact Customers**

- All affected customers will be contacted by the Shipping Supervisor. Their contact information can be obtained from the Customer Log in the Shipping supervisor's office.
  - Immediate notification is done by telephone first, and
  - Then, a Notice of Recall is sent by e-mail or fax confirming the recall situation and including all the details of the recall
  - Confirmation of notification must be received from all customers by e-mail or fax. If this is not received, a second telephone call is required.
- Provide customers with the following information:
  - An explanation for the recall
  - Accurate information on the product being recalled (i.e. product description and lot code)
  - Clear instructions on what to do with the affected product (e.g. isolate and hold it, return it to the facility)

5. **Account for All Affected Product**

- Once confirmation has been received from all affected customers:
  - Ensure that the quantities of affected product received by each customer match the shipping records at the facility
  - Ensure that all customers have located all affected product
  - Ensure that all customers isolate all affected product to prevent it from reaching consumers
- The sum of affected product remaining in the facility and the product at each of the customers' warehouses should be the same as the total amount of product manufactured. If it is less, go back to Step 2, determine the location of the missing product and proceed to notify customers or place product on "*HOLD*" if still within the facility.

6. **Control Affected Product**

- The Recall Coordinator will conduct a food safety assessment to determine if the product can be tested and re-worked
  - If the product can be re-used, the Recall Coordinator will communicate the decision to the Production and Shipping supervisors
    - The Shipping Supervisor will retrieve product from customers
  - If the result of the food safety assessment or the lab results indicate that the product must be destroyed,
    - A red *"To Be Destroyed"* label must be placed on all skids of affected product
    - The Recall Team will determine the location to where all affected product must be taken to be destroyed
    - The Shipping Supervisor will contact all affected customers and notify them about the procedure to follow for the disposal of product
    - The Recall Coordinator will ensure that all affected product that was accounted for is destroyed under the direction of the CFIA

7. **Recall Investigation**

- The Recall Coordinator is responsible for recording any instances of injuries and or illnesses due to the recalled products
- The Food Safety Coordinator will conduct a root cause analysis and will ensure appropriate corrective actions are taken to prevent the problem from recurring

Deviations:	**Corrective Actions:**	**Records:**
The Production Supervisor was not available at the start of the recall	Contact the Production Supervisors back-up	RCD P7.2.1 Recall and Mock Recall Record
Not all product remaining in the facility could be located	Stop production, production Manager to review all production logs and have all lead-hands involved until product is located.	RCD P7.2.2 Customer Complaint Record RCD P7.2.3 Notice of Recall

EXAMPLE 5
Mock Recall Procedure

XYZ Food Facility	Mock Recall Procedure	
	Written By: Jeannie Niro	Code: SOP P7.2.2

Who: Recall Team
- Food Safety Coordinator (Recall Coordinator)
- Company owner
- Production Supervisor
- Shipping Supervisor

When:
- Once per year

What:
1. Pick a recall scenario describing a food safety problem with a specific lot of finished product
2. Follow Recall Procedure SOP P7.2.1
   a. Note that government authorities and customers will not be notified when conducting a mock recall
   b. Ensure that contact information for all customers, government authorities and recall team members is current
3. If the procedure was not able to account for 100% of the affected product or took more than 4 hours to complete,
   a. Identify the reasons
   b. Implement corrective actions
   c. Repeat the mock recall
4. Fill out RCD P7.2.1 Recall and Mock Recall Record
5. File copies of all related records used during mock recall with Mock Recall Record (e.g. Shipping Records, Production Records)

Deviations:	Corrective Actions:	Records:
Contact information for customer was not up to date	Contact the Customer and collect all Recall-related contact information to update the list	RCD P7.2.1 Recall and Mock Recall Record RCD P7.2.3 Notice of Recall
Can't identify the reasons we were unable to account for 100% of the product in less than four hours	Review recall procedure and correct any existing gaps Ensure that the production and shipping logs are being completed properly Repeat the mock recall	

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EXAMPLE 6

Recall and Mock Recall Record

XYZ Food Facility	Recall and Mock Recall Record	
	Written By: Jeannie Niro	Code: RCD P7.2.1

☐ Recall ☐ Mock Recall

Date: _____

Starting time: _____ Time when completed: _____ Total time to complete procedure: _____

Recall Team (Print name)

General Manager _____ Food Safety Coord. _____ (Recall Coordinator)

Production supervisor _____ Shipping supervisor_____

Name of Affected Product: _____

Packaging/Size: _____

Reason for Recall: _____

_____

_____

Lot code of affected product: _____ Total amount of product produced _____kg

Effectiveness of Recall

Amount of product remaining within the facility:

finished product warehouse _____kg

facility cooler _____kg

product on hold _____kg

Amount of product located at:

_____ _____kg
(Customer name)

_____ _____kg
(Customer name)

_____ _____kg
(Customer name)

_____ _____kg
(Customer name)

% of product accounted for:

$$\frac{\text{(kg in warehouse + kg in cooler + kg of product on hold + kg at all customers)}}{\text{Total kg produced}} \times 100 = \_\_\_\_\_$$

Deviations:	Corrective Actions:

Signature Recall Coordinator:	Date:

Verification (Annually):

Food Safety Supervisor Signature: _____ Date: _____ Time: _____

Deviations: _____

Corrective Actions: _____

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EXAMPLE 7

Customer Complaint Record

XYZ Food Facility	Customer Complaint Record	
	Written By: Jeannie Niro	Code: RCD P7.2.2

Who:
The Customer Complaint Record is completed by the Customer Service Office then sent to the Food Safety Coordinator who will review the complaint and perform the investigation. If the investigation leads to a food safety issue the Food Safety Coordinator will assess the severity of the situation, with the Management Team and will follow SOP P7.2.1 if a recall is necessary.

Customer Service Office:

Received by: _____ Date: _____ Time: _____

Complaint #:_____

Description of complaint:

_____

_____

_____

Food Safety Coordinator: Is this a food safety issue? YES NO

If YES, describe the food safety hazard _____

_____

Implicated product (Customer Service Office)	
Name and description	
Lot code	
Purchase location	
Customer information (Customer Service Office)	
Store name (if applicable)	
Contact name	
Telephone number	
Mailing address	
Internal investigation (Food Safety Coordinator)	
Production date	
Total amount produced	
Amount within the facility	
Amount shipped out	
Need to assemble Recall Team?	YES NO If NO, why?_____
Action taken	

Signature (Customer Service Office):	Date:
Signature (Food Safety Coordinator):	Date:

Verification (Annually):

Food Safety Supervisor Signature: _____ Date: _____ Time: _____

Deviations: _____

Corrective Actions: _____

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EXAMPLE 8
Notice of Recall

XYZ Food Facility	Notice of Recall	
	Written By: Jeannie Niro	Code: RCD P7.2.3

URGENT – RECALL OF *(Name of Product)*

XYZ Food Facility

(Address)

(Date)

Dear Customer, **or,** Attention: *(NAME OF CUSTOMER CONTACT)*

XYZ Food Facility is recalling the products listed below because (include description of the problem).

Product Name	Brand	Size	Lot Code

Please discontinue selling these products IMMEDIATELY. XYZ Food Facility will credit you for the recalled product and will call you to arrange pick up.

IMPORTANT

Please record the time and date you received this Recall Notice and acknowledge receipt by signing and faxing this document to **XYZ Food Facility** at 123-456-7890.

Date/Time Received:_____ Signature:_____

Name of store/Distributor:_____

Thank you for your cooperation.

(Signature of Shipping Supervisor)

XYZ Food Facility

EXAMPLE 9

Recall Training Procedure

XYZ Food Facility	Recall Training Procedure	
	Written By: H. Smith	Code: SOP T7

Who:
Designated Product labelling personnel, trained by Production Supervisor
The entire recall team (see SOP P7.2.3 for names, positions and contact information) trained by the Food Safety Coordinator

When:
- Prior to designated personnel performing product labelling or Recall Team job duties
- Yearly refresher training
- When changes are made to the Recall program
- As necessary if deviations are found

What:
1. Training will focus on either Product Labelling or Recall depending on the job duties of the trainees
2. For both Product Labelling and Recall, training will be delivered in 2 parts:

   Part 1 is in class using:
   - OMAFRA's *Advantage GMP* Training Kit – Module 6: Recall
   - procedures and records developed in P7 Recall (P7.1 Product Labelling OR P7.2 Recall)

   Part 2 is on the floor using:
   - procedures from P3, for the storage of potentially contaminated product (P3.2.1 HOLD procedure)
   - procedures from P7.1 Product Labelling for proper labelling of product
3. After both the in class and on the floor sections of training have been completed all participants must complete the recall training assessment and receive a passing mark of 8 out of 10.
4. Upon completion of training, the name of the trainer, the name and signature of the person trained, the type of training given and the date of the training will be recorded on the Employee Training Record (RCD T7.1).

Deviations:	Corrective Actions:	Records:
Employee is absent from training	Train the employee before they start/return to work	RCD T7.1 Recall Training Record
Employee did not pass the recall training assessment	Employee is re-trained and a hands-on training session is conducted	RCD T7.2 Recall Training Assessment

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EXAMPLE 10

Recall Training Record

XYZ Food Facility	Recall Training Record	
	Written By: H. Smith	Code: RCD T7.1

Date of Training Session: June 10, 2009

Trainer's Name: Dave Roach

Signature of Trainer: Dave Roach

Training materials presented:
- Procedures from P7
- Procedures from P3
- OMAFRA's *Advantage GMP* Training Kit – Module 6: Recall

Name of Trainee (please print clearly)	Signature of Trainee
My signature verifies that I have received the training listed above and that I fully understand the training I received.	
Tom Hark	Tom Hark
Jim Stainton	Jim Stainton
John McGuire	John McGuire
All employees listed (and as indicated on the Training Schedule) must receive the training prior to starting handling job duties. If an employee is not present for the training session they must be trained upon their return to work.	

Deviations:	Corrective Actions:

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EXAMPLE 11

Recall Training Assessment

XYZ Food Facility	Recall Training Assessment	
	Written By: H. Smith	Code: RCD T7.2

Name: _____ Date: _____

1. How long should a mock recall take to recall ALL of the product? _____
2. Where is the customer contact list stored? _____
3. Who is responsible to make sure all the product is labelled correctly? _____
4. Who is responsible in deciding if "XYZ Food Facility" is going to recall a product? _____
5. Do we call the CFIA on Mock Recalls? _____
6. In the product code what does the underlined # refer to? HF 2 010 09 _____
7. How many packaged products are taken off the line to check the product label? _____
8. How often is a mock recall performed? _____
9. Are government agencies contacted during a mock recall? _____
10. What is sent to customers to notify them of the recalled products they may have? _____

Mark: /10 **Passed: Y – N** (≥ 8 is a pass)

Trainer: _____

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EXAMPLE 12

Recall Verification Procedure

XYZ Food Facility	Recall Verification Procedure	
	Written By: Bob Love	Code: SOP V7

Who & When:
P7.1 Product Labelling – Production Supervisor, daily at the end of each production shift
P7.2 Recall & Mock Recall – Food Safety Coordinator, annually

What:

Verification of P7.1 Product Labelling Activities and Records

1. Review the shift's RCD P7.1 Records (Product Labelling Record, Production Log) to ensure that all tasks were completed as scheduled and records were completed properly (see "Verification of Records" below for what to look for on records)
2. Bring the SOP P7.1.1 procedure with you and meet with the designated employee
3. Observe the employee performing the tasks as written in the procedure
4. After verification of the Product Labelling activities and records is complete, record your signature, and the date and time directly on the Product Labelling records in the space provided. Record any deviations and corrective actions.

Verification of P7.2 Recall & Mock Recall

1. Review the previous year's mock recall records, since the last verification to ensure the mock recall was conducted as scheduled and records were completed properly (see "Verification of Records" below for what to look for on records)
2. Review any recall records generated since the last verification (if a recall was performed in the last year) to ensure the records were completed properly (see "Verification of Records" below for what to look for on records)
3. Review any Customer Complaint Records generated since the last verification to ensure the records were completed properly and appropriate investigation and follow-up was recorded
4. After verification of the Recall & Mock Recall records is complete, record your signature, and the date and time directly on the Recall & Mock Recall Record in the space provided. Record any deviations and corrective actions.

Verification of Records

- Mistakes have been crossed through with a single stroke and that pencil and liquid paper have not been used
- All deviations and corrective actions are recorded on the record and that the corrective actions were appropriate
- Records are signed and dated by the designated employee
- No blank spaces were left on the record, "N/A" was recorded if necessary
- No evidence of falsified entries
- If food safety was compromised, effected items were put on Hold and a Food Safety Assessment was conducted
- If there were repeat deviations, a root cause analysis was conducted

Deviations:	Corrective Actions:	Records:
Records are incomplete	• Investigate why the record was not complete • Retrain the employee and record the training	RCD P7.1.1 Product Labelling Record RCD P7.1.2 Production Log RCD P7.2.1 Recall & Mock Recall Record RCD P7.2.2 Customer Complaint Record
Product labelling activities do not match with what is written	• Retrain employee on the proper procedure and record the training • The Food Safety Coordinator may consider revising the procedure to reflect what personnel are doing if it will not compromise food safety	
If food safety may have been compromised	• Inform Area Supervisor. Follow Hold Procedure SOP P3.2.1.	
If deviation is recurring	• Perform a root cause analysis • If necessary, retrain employee, remove employee from these duties and/or begin the disciplinary action process • Record training	

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Water

Why is it Important to Have a Water Program?

Water, ice and steam can be used in food processing as an ingredient, as part of a process (e.g. processing aid for chilling or rinsing), for sanitation or for personnel hygiene (e.g. hand washing). Due to its wide use within food facilities, water can have a large impact on food safety, and food processors must take all possible measures to ensure water is safe.

Non-potable water can lead to contamination of food, ingredients, processing aids and food contact surfaces. Even treated water can become a source of contamination if the treatment procedure is conducted incorrectly. If there isn't enough water at the correct temperature and pressure, the processes requiring water (e.g. sanitation) may not be carried out correctly leading to food safety issues.

A water program is designed to ensure that water, ice and steam used as an ingredient, for processing, sanitation and personnel hygiene, is potable and the water supply is sufficient to perform all activities that require water.

A written water program includes procedures for conducting water treatment, sampling and testing of water and ice, and monitoring of the water supply.

P8 Water

Water Treatment P8.1

This standard applies to facilities using non-municipal water or facilities conducting internal water treatment on municipal water.

Written water treatment procedures and corresponding records are in use to ensure that water, ice and steam used for processing, sanitation and personnel hygiene, is potable. Water treatment procedures include instructions for:

- Preparation and use of water treatment chemicals
- Monitoring of water treatment equipment

Non-municipal water could include dug wells, drilled wells, spring water, reservoirs, etc.

Suggestions to Meet the Standard

Water treatment ensures that water is potable. For potability requirements refer to standard P8.2 Water Testing.

Develop water treatment procedures (see Example 1)

- For facilities using chemical water treatment (e.g. chlorination, boiler feed water chemicals) the procedure should include:
    - A list of chemicals required, appropriate volumes, mixing instructions (e.g. to obtain the required concentration mix one part chemical to three parts water) and instructions for use
        - All the chemicals used for water treatment should be listed on the CFIA's Reference Listing of Accepted Construction Materials, Packing Materials and Non-Food Chemicals Products or have a letter of no objection from Health Canada. Water treatment chemicals should be on the company's approved chemical list that will be created under standard P3.4 Chemical Control.
    - Details on how to test water to ensure that the residual level of chemical used is in the correct range (e.g. method for chlorine residual test)
    - A water treatment frequency that is adequate for the water usage/flow in the facility
    - The Material Safety Data Sheet (MSDS) of the chemicals used for treatment
- For facilities using physical water treatment (e.g. ultraviolet, ozonation, activated carbon contractors, filters, reverse osmosis-membranes)
    - Include instructions for monitoring the treatment system according to the manufacturer's instructions (e.g. that it's functioning, warning indicators)
    - Include replacement of the physical water treatment devices (e.g. filters, contactors, boilers, UV light source, membranes) in your P5 Preventative Maintenance & Calibration program

P8 Water

Suggestions to Meet the Standard

Develop a procedure for treatment of re-circulated water

- Re-circulated water refers to water that is used more than once for processing (e.g. cooling and washing), sanitation or personal hygiene
- Prior use of the water, how it is collected and its intended use effect the treatment that may be needed
- When selecting treatment methods for re-circulated water, consider the types of contaminants the water may have acquired from its previous use, e.g. chemical treatment may not be effective if the water contains a lot of organic compounds, UV may not be effective if the water contains particulates

Develop corresponding water treatment records (see Example 2)

- If using an external company to monitor water treatment equipment ensure the company provides completed service reports with findings that are clear and legible. These reports should be reviewed, signed and dated by a designated facility employee.

P8 Water

Water Testing P8.2

Written water testing procedures and corresponding records are in use to ensure that water used for processing, sanitation and personnel hygiene, is potable. Water testing procedures include instructions for:

- Sampling of water and ice
- Prevention of cross-contamination during sampling
- Testing water for E. coli and total coliforms

For facilities using municipal water, water is tested at minimum, semi-annually for E. coli and total coliforms

For facilities using non-municipal water, water is tested at minimum, monthly for E. coli and total coliforms

Acceptable levels for both tests are "non detectable"

Where appropriate, water is tested for the presence of harmful chemicals

Suggestions to Meet the Standard

Develop water testing procedures (see Example 3)

- Include specific instructions for taking water samples and recommendations to avoid contaminating samples
- Microbiological testing can be done by an external laboratory or in-house
    - Contact an accredited laboratory or/and a laboratory supply company
    - In-house microbiological testing should include instructions for taking and testing water samples, reagents, and precautions to avoid contamination of the sample
- Include testing for chemicals (e.g. heavy metals, pesticides) in areas with known or suspected high chemical levels, for example, if your facility is located in an area where there is pesticide use
    - If using Municipal water, review and retain water reports from your local municipality for chemical results
- All test results should be reviewed. Corrective actions must be taken when results indicate presence of E. coli and/or total coliforms, for example:
    - Disinfection of the well might be necessary
    - A "Food Safety Assessment" should be conducted for any product manufactured with water that has positive results for E. coli and/or total coliforms. In the case that the product is already in the market, a recall might be necessary.

P8 Water

Suggestions to Meet the Standard

Develop a water testing schedule

- Commodity-specific regulations may require more frequent water testing. Check your regulations for specific testing frequency requirements (see Food Safety Management System, FSMS, for more information).
- Re-circulated water may require more frequent testing to ensure it is potable

Develop a schematic of the facility indicating the locations where water samples are collected (see Example 4)

- Samples should be taken at the point where the water enters the system and throughout the distribution system
- If the water supply is obtained from more than one source, the sampling points should be chosen to ensure that water from each source is sampled
- Samples should be labelled to identify the sample location

Develop a plan/procedure to be used in the event of a boil water or water safety alert, to ensure water used for processing, sanitation, and personnel hygiene is potable or the schedule for production is adjusted

Develop corresponding water testing records (see Example 5)

Steam used for processing or that could come into contact with food, ingredients, processing aids, packaging material or food contact surfaces is generated from potable water

P8 Water

Water Supply P8.3

Written procedures and corresponding records are in use for ensuring water, ice and steam are supplied at adequate volume, pressure and temperature for all processing, sanitation and personal hygiene activities.

Suggestions to Meet the Standard

Ensure that water, ice and steam is supplied at volumes, temperatures and pressures appropriate for your operation

- Be sure to consider water, ice and steam used for:
  - Chemical mixing and application
  - Hand-washing activities
  - Processing e.g. processing aids for rinsing and chilling
  - Equipment rinsing and other sanitation activities
  - Ingredients
- Consider if there are particular temperatures required by your operation, e.g. recommended temperatures for sanitation chemicals, hand washing requires warm water, water chill baths must be cold enough to lower the temperature of the product
- Make sure there is enough water to complete all activities that would normally happen in a day, e.g. if you ever run out of water you don't have sufficient volume
- Consider activities that require water under pressure, e.g. hand washing, burst rinsing of cleaning chemicals

Develop procedures and records for monitoring the water supply in your facility (see Examples 6 & 7)

- Include specific instructions for what to look for and where, e.g. how to check the temperature of water
- Non-municipal water sources (e.g. well water) should be monitored to ensure water is under pressure
- You may find it beneficial to combine the monitoring of your water supply with other standards such as P9 Environment

T8 Water

Water Training T8

Written procedures and corresponding records are in use for training on the water program. The procedures identify:

- Personnel who require training
- The trainer
- Training material used
- Frequency of training
- Assessment method to confirm the training is understood

Training is provided prior to starting water job duties and whenever changes are made to the water program.

Refresher training is provided at minimum once per year.

Suggestions to Meet the Standard

Develop a training procedure (see Example 8)

- Include instructions to ensure all the appropriate personnel are present for training (e.g. cross-referencing training list, training schedule and up-to-date employee lists)
- The type and amount of training material used may be different between facilities using municipal water and facilities conducting internal water treatment. For example, additional training material may be required if water treatment is done in-house. Whether using in-house water treatment or municipal water, training should cover all aspects of your water program including water treatment, water testing, and monitoring water supply.
- Materials that can be used to support training of the Water program:
    - Procedures developed in P8
    - OMAFRA's *Advantage GMP* Training Kit – Module 7: Water Safety
    - Drinking water publications from the Ministry of Environment – Drinking Water Ontario website
    - Material provided by your water treatment chemical supplier
    - Manufacturer manual of the devices used for water treatment
    - MSDS of the chemicals used for water treatment
    - Videos/visual aids

Develop corresponding records for the training material presented (see Example 9)

- Training records list who is in attendance, the date the training took place, the topic, the material used and the name and signature of the trainer
- The training records have space for employees to initial or sign to indicate that they received the training

T8 Water

Suggestions to Meet the Standard

Develop a method to assess and prove that employees who were trained understood the training material (see Example 10)

- For example a written or verbal test, observe the employee performing the task, job shadowing for a probation period

Develop a training schedule. The training schedule should include the names of employees and personnel that require the training.

- The training schedule is predetermined and indicates who needs to be trained and how often refresher training will occur
    - How often you have refresher training depends on your commodity, employee turnover rate and/or season of production e.g. once per year, once per season, or every six months
- It may be easier to have one schedule for all 9 training standards (see Example 9 in P1 Personnel)

Remember to include deviations and corrective actions in training procedures (e.g. documenting employees absent from training and/or reassessing training materials if training is not effective)

All 9 GMP sections require training procedures and records be developed and used. You may consider combining training procedures and records for some or all 9 GMP sections. If training procedures are combined, be sure to include details from all sections in the combined procedure (e.g. materials used to train each section, detailed schedule).

V8 Water

Water Verification V8

Written procedures and corresponding records are in use for water verification, which confirms at pre-determined intervals that:

- Water activities are being performed as written
- Records are completed properly

Suggestions to Meet the Standard

Develop verification procedures (see Example 11)

- To verify the water program, the most common method is to observe the task being performed and record whether the task is performed as written
- Another verification method is to interview the employee regarding the procedures and corrective actions for which they are responsible
- To verify that water records are being properly completed all the records since the last verification should be reviewed. If no deviations are found, the number of records being reviewed can be decreased. Verification of the records is done to ensure that:
    - Mistakes have been crossed through with a single line and initialled by the designated employee and that liquid paper has not been used
    - Documents have been completed in permanent ink (no pencil)
    - All records are signed and dated by the designated employee
    - No blank spaces have been left on the record, if necessary "N/A" was recorded
    - The activities have been carried out in the appropriate frequency
    - There is no evidence of falsified entries
    - All deviations and corrective actions are documented and are suitable
    - If food safety may have been compromised, effected items were put on Hold and a Food Safety Assessment was conducted
    - If a deviation was recurring, a root cause analysis was conducted

Develop a water verification schedule based on the risk of the activity being performed

- If there is a high employee turnover rate in the facility, it might be necessary to increase the frequency of the verification to ensure that employees responsible for the water program are performing them according to the written procedures
- Generally, if the activity occurs daily then the verification would occur weekly, if the activity occurs weekly then the verification would occur monthly, and so on

Develop corresponding records for water verification procedures, remember to include corrective actions in all procedures and records (see Example 12)

- A separate verification record can be created from the monitoring record or a space right on the monitoring record can be created for the verifier to record his/her findings and to date and sign
- All procedures and records that relate to the water program should be listed on the verification record

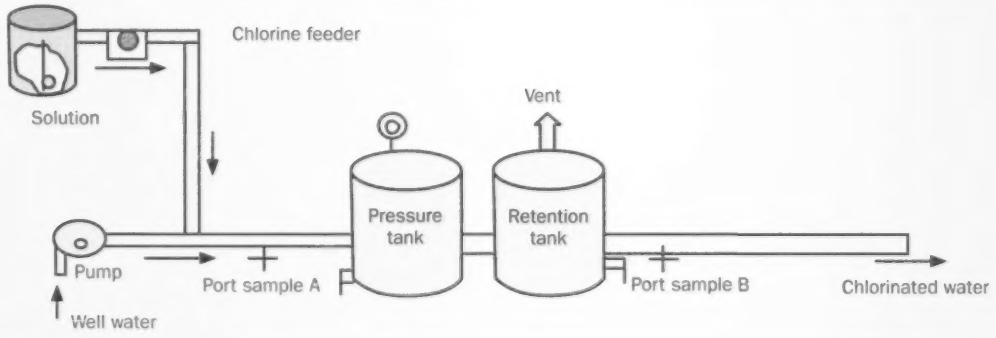
EXAMPLE 1

Water Treatment Procedure – Chemical Treatment

XYZ Food Facility	Water Treatment Procedure	
	Written By: A. Idrobo	Code: SOP P8.1.1

Who:	**When:**
Designated trained personnel	Daily before production begins
Personal Protective Equipment (PPE)	
Goggles, rubber boots, rubber apron, gloves, respirator. Always provide adequate ventilation when using chlorine.	
What:	
Preparation of the Chlorine solution	1. Using a graduated cylinder, measure the correct amount of chlorine (sodium hypochlorite) according to the chlorination chart provided by "ABC Chemical Supplier". The concentration should be between "A" and "B" ppm. 2. Add chlorine to a clean bucket that has been partially filled with water as stated in the chart. Always add the chlorine to the water, NOT the water to the chlorine.
Chlorine delivery	1. Transfer the chlorine solution into the solution tank (see diagram) 2. Run the water to turn the pump and chlorine feeder on. Let the water run for 15 minutes. 3. Collect water samples from sample port A and port B 4. Test each sample for residual chlorine using supplied chlorine test strips according to the instructions on the back of the box 5. If residual chlorine is not between "X" and "Y" ppm, for both samples, adjust the chlorine feeder to achieve the required residual chlorine level and start over at step 3 6. Complete RCD P8.1.1 Water Treatment Record with your initials and date

Deviations:	**Corrective Actions:**	**Records:**
Chlorine residual is not between "X" and "Y" ppm after the chlorine feeder is adjusted	Inform Supervisor. Prepare chlorine solution again. Do not operate the system until the chlorine concentration is within the appropriate range.	RCD P8.1.1 Water Treatment Record
Food safety may have been compromised	Inform Supervisor and Food Safety Coordinator. The Food Safety Coordinator will conduct a "Food Safety Assessment"	
Deviation is recurring	Inform Supervisor who will perform a root cause analysis	



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EXAMPLE 2

Water Treatment Record

XYZ Food Facility	Water Treatment Record	
	Written By: J. Idrobo	Code: RCD P8.1.1

When: Daily before production begins

What: Record the date and your name in the space provided

- Following SOP P8.1.1, chlorinate water and test residual chlorine at ports A and B
- Indicate if chlorine residual was within the correct range by writing "Yes" or "No" under the appropriate column. If no production that day, record "N/A".
- Record any deviations that occurred while following the treatment procedures in the deviation box. Record all Corrective Actions taken for each deviation in the space provided.
- Initial the record each day

Name of the employee: Joseph Lance Week of (Monday): Jan. 11/2010

Date mm/dd/yy	Time of Treatment	Port A Chlorine Residual between "X" and "Y" ppm? Yes/No	Port B Chlorine Residual between "X" and "Y" ppm? Yes/No	Deviations/Corrective Actions	Initial
01/11/10	6:30am	Yes	Yes		JL
01/12/10	7:20am	Yes	Yes		JL
01/13/10	6:50am	No	No	Deviation: Chlorine feeder could not be adjusted to increase the chlorine residual to between X and Y ppm. Corrective Actions: Supervisor was informed. Production not started and all water use stopped until chlorine feeder was replaced. Residual chlorine retested and in appropriate range. Production started at 8:30am.	JL
01/14/10	6:45am	Yes	Yes		JL
01/15/10	6:30am	Yes	Yes		JL
01/16/10	6:35am	Yes	Yes		JL
01/17/10	N/A	N/A	N/A		JL

Verification (Weekly):

Food Safety Coordinator Signature: John Yates Date: Jan. 16, 2010 Time: 6:35am

Records verified ☑ Procedure verified ☑

Deviations: _____

Corrective Actions: _____

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EXAMPLE 3
Water Testing Procedure

XYZ Food Facility	Water Testing Procedure	
	Written By: A. Idrobo	Code: SOP P8.2.1

Who:	When:
Designated trained personnel	Monthly

What:

Use one of the aseptic bottles labelled "water sample"

1. Plan to take the sample when you are sure it can be shipped to ABC Accredited Laboratory within 24 hours. The water sample should not be left sitting for a long period of time as this can lead to inaccurate results.
2. Collect a sample from all the sampling points, according to the Water Sampling Schematic on the second page of this procedure. Use a separate bottle for each sampling location.
3. Label each sample bottle with the name and number of the sampling location
4. Remove the aerator, screen or other attachments from the faucet
5. Disinfect the end of the faucet spout with an alcohol (isopropyl 70%) swab before running the water to remove debris or bacteria. Do not use a flame to disinfect the tap.
6. Turn on cold water and let it run for three minutes to remove standing water from the line. Remove the sample bottle lid. To avoid cross-contamination:
   - Do not touch the inside of the lid
   - Do not put the lid down
   - Do not rinse out the bottle
7. Fill the bottle up to half of its capacity and close the lid firmly

Remember that proper handling will help to make sure test results are accurate!

8. Pack samples in an insulated bag and store in the fridge until they can be shipped
9. Complete ABC Accredited Lab's Test Requisition Form for *E. coli* and total coliform testing, list your name and email as the contact for results
10. Have the receptionist ship the samples to ABC Accredited Lab
11. When results are received complete RCD P8.2.1 Water Testing Record with your initial and date

Deviations:	Corrective Actions:	Records:
Sample contaminated (e.g. due to touching the inside of the lid, lid falling on floor)	Discard the contaminated sample. Repeat the sampling procedure.	RCD P8.2.1 Water Testing Record
Testing results are above zero/non-detectable	Immediately notify Food Safety Coordinator who will perform a Food Safety Assessment and determine next steps	
Deviation is recurring	Inform Supervisor who will conduct a root cause analysis	

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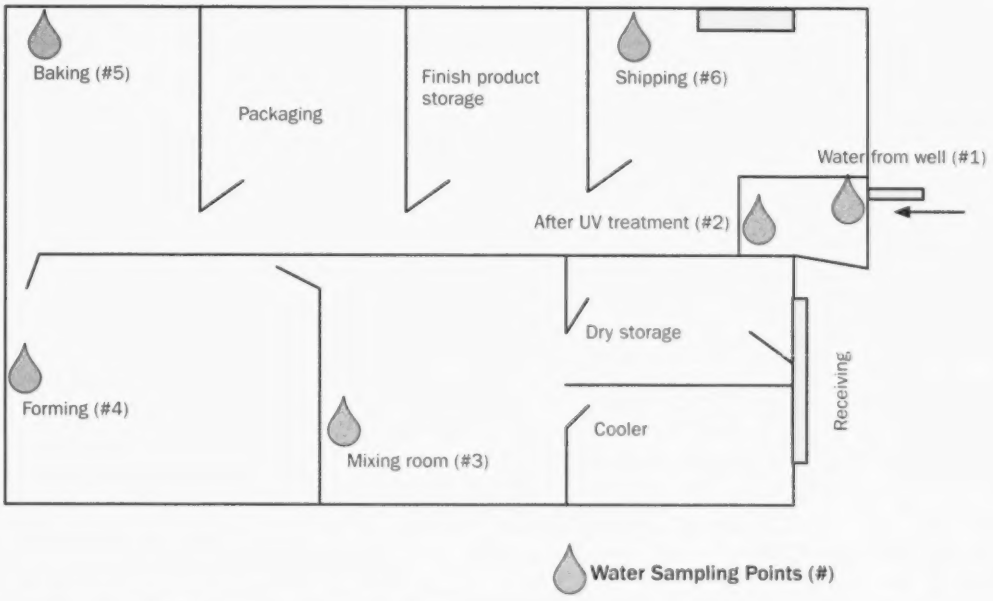
EXAMPLE 4

Water Sampling Schematic

XYZ Food Facility	Water Sampling Procedure	
	Written By: A. Idrobo	Code: SOP P8.2.1



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EXAMPLE 5
Water Testing Record

XYZ Food Facility	Water Testing Record	
	Written By: J. A. Idrobo	Code: RCD P8.2.1

What: Record your name and the date the water samples were collected in the space provided

Following SOP P8.2.1 Water Testing Procedure, take samples, have them tested by ABC Accredited Laboratory and receive the results. All results should be "non-detectable" to be acceptable. After receiving test results from the lab, complete all areas of this record. Record all deviations and corrective actions.

When: Monthly

Name: Joseph Lance **Date Water Samples Taken:** October 2, 2009

# and Location of the sample	Tested for both total coliforms and E. coli? Yes or No	Date Results Received (MM/DD/YY)	Were the test results "Non-detectable"? Yes or No	Deviations	Corrective Actions	Initials
#1 Water from well	Yes	10/05/09	Yes			JL
#2 After UV treatment	Yes	10/05/09	Yes			JL
#3 Mixing Room	Yes	10/05/09	Yes			JL
#4 Forming	Yes	10/05/09	No	Sample test showed Contamination with E. coli and coliforms	Immediately informed Food Safety Coordinator. Investigated, the sample location and found the backflow prevention device was not functioning and back siphonage was occurring. Device was replaced and the water was retested for bacterial contamination. All products manufactured since the last successful test were placed on hold. Conducted a Food Safety Assessment , product testing confirmed that product was affected. Distributed product was recalled, see RCD P6.1.1 Recall. October 6/09 John Yates (Food Safety Coordinator)	JL
#5 Baking	Yes	10/05/09	Yes			JL
#6 Shipping	Yes	10/05/09	Yes			JL

EXAMPLE 6

Water Supply Procedure

XYZ Food Facility	Water Supply Procedure	
	Written By: Alice Rabbito	Code: SOP P8.3.1

Who:	When:
Designated trained maintenance personnel	Quarterly

What:

1. **Hand Wash Stations**
   Make sure all hand wash stations have water that is warm enough to comfortably wash hands and that water is running under enough pressure to rinse off soap

2. **Water Outlet in Wash-Up Area**
   Turn the hot water on, collect some hot water in a bucket and take the temperature. The water should be Y°C or higher.

3. **Sanitation Hose in Processing Area**
   Turn the hot water on, collect some hot water in a bucket and take the temperature. The water should be Y°C or higher.

4. **Outlet for Chill Tank**
   Take the temperature of the water in the bath. The water should be X°C or lower.
   Interview employees, to determine if water is supplied in sufficient volume, ask: Does the chill tank fill fast enough to keep up with production? Does the water circulate often enough to maintain the correct temperature? Is product ever left sitting in no water or in water that is too warm because there isn't enough water from the outlet?

5. **Steam Valve in Processing (Casing Step)**
   Make sure valve is working, e.g. steam comes out
   Interview employees, asking, is steam readily available and consistent?

6. **Ice Maker**
   Check there is ice in the ice maker
   Interview employees, asking is there enough ice for production? Do they ever run out?

7. Complete RCD P8.3.1 Water Supply Record before signing and dating it

Deviations:	Corrective Actions:	Records:
Any items found unsatisfactory	Correct the problem if possible. Put in work order to have item repaired if necessary. Inform the Food Safety Coordinator for all Corrective Actions that cannot be immediately completed and transfer the record to the Food Safety Coordinator. Record all Corrective Actions taken.	RCD P8.3.1 Water Supply Record
Food safety may have been compromised	Inform Area Supervisor. Follow Hold Procedure SOP P3.2.1.	
Deviation was recurring	Inform Supervisor who will ensure a root cause analysis is performed	

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EXAMPLE 7

Water Supply Record

XYZ Food Facility	Water Supply Record	
	Written By: Alice Rabbito	Code: RCD P8.3.1

Who: Designated trained maintenance personnel **When:** Quarterly

What: Following SOP P8.3.1 inspect for the items below to ensure water, ice and steam are supplied in sufficient volumes, temperatures and pressures. Mark each item with a "✓" if it is satisfactory or an "X" if unsatisfactory. Take and record water temperatures where indicated. All Xs indicate a deviation. Record the deviation and corrective action and work order # (if necessary). Sign and date the record.

Item: Check...	✓ or X	Deviations	Corrective Actions
Hand Wash Stations (check all 10 hand wash stations before recording a check mark)			
Water is warm enough to wash hands	✓		
Water is under pressure	✓		
Water Outlet in Wash-Up Area			
Water Temperature Y °C (should be Y°C or higher)	✓		
Sanitation Hose in Processing Area			
Water Temperature Y °C (should be Y°C or higher)	✓		
Outlet for Chill Tank			
Water Temperature X °C (should be X°C or lower)	✓		
Water supplied in sufficient volume	✓		
Steam Valve in Processing			
Valve is working	✓		
Sufficient steam supply	✓		
Ice Maker			
Ice in ice maker	✓		
Sufficient ice supply	✓		

Name: (print): Frank Land **Signature:** F. Land **Date:** March 4th, 2009

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EXAMPLE 8

Water Training Procedure

XYZ Food Facility	Water Training Procedure	
	Written By: A. Idrobo	Code: SOP T8

Who: Food Safety Coordinator will train designated employees responsible for water duties

When:

- Prior to designated employees performing water duties
- Yearly refresher training
- As necessary when changes are made to the water program
- As necessary if deviations are found

What:

1. Ensure all appropriate trainees are present by cross-referencing the Master Training Schedule, Human Resources and new hire lists

Training for Water activities will consist of demonstration training and in-class training

2. Train in-class by presenting:
   - Procedures from P8 – Water
   - MSDS
   - OMAFRA's *Advantage GMP* Training Kit – Module 7: Water Safety
3. Demonstrate the following for the trainees:
   - How to properly perform water treatment
   - How to properly take water samples, complete Laboratory Requisition forms and read test results
   - How to properly perform water supply monitoring activities
   - How to properly record deviations and corrective actions
4. After in-class and demonstrations are complete, have all trainees complete the RCD T8.2 Water Training Assessment. Trainees must get at least 4 out of 5 to pass the Assessment and complete the training.
5. Upon completion of training, record your (trainer) name, your signature, the date and the type of training on RCD T8.1 Water Training Record. Have each trainee record their name and signature.

Deviations:	Corrective Actions:	Records:
Employee is absent from training	Train the employee before they start/return to work	RCD T8.1 Water Training Record RCD T8.2 Water Training Assessment
Employee did not pass the water training assessment	Re-train employee and re-administer Water Training Assessment until passing grade is achieved	

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EXAMPLE 9

Water Training Record

XYZ Food Facility	Water Training Record	
	Written By: A. Idrobo	Code: RCD T8.1

Date of Training Session: October 13, 2008

Trainer's Name: Joseph Lance

Signature of Trainer: J Lance

Type of Training Presented	Demonstrated
• Procedures from P8 - Water • MSDS • OMAFRA's Advantage GMP Training Kit–Module 7: Water Safety	• water treatment • taking water samples • completing Laboratory Requisition forms • reading test results • water supply monitoring tasks • completing records

Name of Trainee (please print clearly)	Signature of Trainee
My signature verifies that I have received and fully understand the training listed above.	
Pedro Ly	Pedro Ly
Sandy Smith	Sandy Smith
Palmy Ark	Palmy Ark
Rosy Al-haed	Rosy Al-haed

All employees listed (and as indicated on the Training Schedule) must receive the training prior to starting water job duties.
If an employee is not present for the training session they must be trained upon their return to work.

Deviations:	Corrective Actions:

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EXAMPLE 10

Water Training Assessment

XYZ Food Facility	Water Training Assessment	
	Written By: J. A. Idrobo	Code: RCD T8.2

Name: _____ **Date:** _____

Answer the following questions as either "True" or "False":

1. Each food production facility is responsible for setting its own standards for potable water _____
2. If residual chlorine is not between X and Y ppm, the chlorine feeder should be adjusted _____
3. Fingerprints do not reduce effectiveness of the light of the UV lamp _____
4. Water samples should be kept in the refrigerator until they are delivered to the drop-off location within 24 hours _____
5. To avoid cross contamination during sampling, the inside of the lid of the sampling bottle should not be touched _____

Passed: Y_____ N_____ **Passing Grade: 4/5**

Trainer: (name & signature) _____

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EXAMPLE 11

Water Verification Procedure

XYZ Food Facility	Water Verification Procedure	
	Written By: A. Idrobo	Code: SOP V8

Who:

Food Safety Coordinator

When:

Follow this procedure weekly for verification of P8.1 Water Treatment
Follow this procedure quarterly for verification of P8.2 Water Testing
Follow this procedure annually for verification of P8.3 Water Supply

What:

Verification of the Water Records

1. Review all P8 records, since the last verification, to ensure that all the tasks were completed as scheduled. Review the documentation to ensure it is complete:
   - Mistakes have been crossed through with a single stroke and that pencil and liquid paper have not been used
   - All deviations and corrective actions are recorded on the record and that the corrective actions were appropriate
   - Records are signed and dated by the designated employee
   - No blank spaces were left on the record, "N/A" was recorded if necessary
   - No evidence of falsified entries
   - If food safety may have been compromised, effected items were put on Hold and a Food Safety Assessment was conducted
   - If there were repeat deviations, a root cause analysis was conducted

Verification of the Water Program Procedures

2. Bring the procedure being verified, with you and meet with the designated employee
3. Observe the designated employee performing the tasks as written in the procedures from P8
4. Upon completion of the verification of water records and procedures, sign and date the appropriate record
   - For weekly verification of water treatment, record your signature, the date, the time and any deviations and corrective actions directly on the RCD P8.1.1 Water Treatment Record in the space provided for verification
   - For quarterly and annual verification of the water testing and water supply respectively, complete RCD V8.1. Record, the date and your name and initials after each verification

Deviations:	Corrective Actions:	Records:
Records are incomplete	• Investigate why the record was not complete • Retrain the employee and record the training	RCD P8.1.1 Water Treatment Record RCD V8.1 Water Verification Record
Employee not doing what is written in the procedure	• Retrain employee on the proper procedure and record the training • The Food Safety Coordinator may consider revising the procedure to reflect what personnel are doing if it will not compromise food safety	
If food safety may have been compromised	• Follow Hold Procedure SOP P3.2.1	
Deviation is recurring	• Perform a root cause analysis • If necessary, retrain employee, remove employee from these duties and/or begin the disciplinary action process • Record training	

EXAMPLE 12

Water Verification Record

XYZ Food Facility	Water Verification Record	
	Written By: J. Idrobo	Code: RCD V8.1

Who: Food Safety Coordinator
When: Quarterly (P8.2 Water Testing) and Annually (P8.3 Water Supply)
What: Observe the designated trained employee while he/she carries out water activities to ensure they are following the water procedures as written and that corresponding records are being completed appropriately.

An"✓" indicates that the criteria has been met
An "X" indicates that the criteria has not been met
Record any deviation(s) and corrective action(s) on this record

Date: Month. DD/YY	Procedure / Record	Procedures Followed ✓ or X	Records Completed Correctly ✓ or X	Deviations	Corrective Actions	Name (print)	Initials
1st Quarter (Water Testing)							
Feb. 16/09	SOP P8.2.1 Water Testing Procedure RCD P8.2.1 Water Testing Record	✓	✓			John Yates	JL
2nd Quarter (Water Testing)							
May 3/09	SOP P8.2.1 Water Testing Procedure RCD P8.2.1 Water Testing Record	✓	✓			John Yates	JL
3rd Quarter (Water Testing)							
Sep. 5/09	SOP P8.2.1 Water Testing Procedure RCD P8.2.1 Water Testing Record	✓	✓			John Yates	JL
4th Quarter (Water Testing and Water Supply)							
Nov. 21/09	SOP P8.2.1 Water Testing Procedure RCD P8.2.1 Water Testing Record SOP P8.3.1 Water Supply Procedure RCD P8.3.1 Water Supply Record	✓	✓			John Yates	JL

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Environment

Why is it Important to Have an Environment Program?

The environment, both outside and inside your facility, can impact the safety of your product. Your facility surroundings can encourage pest harbourage, increasing the likelihood that pests will enter your facility. External contaminants, such as dust and pollutants can also enter your facility. All aspects of the interior environment of your facility including the structure, layout, equipment, air, temperature, sewage systems and brittle material are potential sources of hazards to your product.

A well designed environment program will ensure that your facility protects your product from external contaminants and that the facility interior does not present hazards. An effective environment program sets the stage for safe food processing.

When first developing your environment program you will have to consider all areas of your facility to determine where hazards may come from. To remove or prevent a hazard, you may discover that you need to make some facility upgrades; whether it be improvements to your ventilation system, resurfacing of walls, installation of more hand wash stations or new equipment.

If facility upgrades aren't possible at the moment, you can do one of the following:

1. Make temporary improvements. For example, resurfacing a piece of equipment that is degrading. This is obviously cheaper than the long-term fix of replacing the equipment. However, this type of band-aid solution can be more expensive in the long run when you consider repeated treatments, labour costs and the increased monitoring required to ensure the solution is still working. Also, when using a temporary solution, be careful that it doesn't introduce new food safety hazards. For example, duct tape is a popular temporary repair but it is unacceptable because it cannot be cleaned and can trap dirt.

2. Put operational controls in place to control the hazard. For example, having an employee squeegee water toward the drain instead of re-sloping your floors. If you use an operational control like this, you must:
   - Have a procedure/policy for employees to follow
   - Verify the employee to make sure they are following the procedure

   This option is initially much cheaper than re-doing your floors, however, when you consider the increased employee time to both perform the task and verify it, it can be more expensive in the long run.

If you are controlling hazards from the environment, you are meeting the requirements of the environment program of GMPs, whether you made facility upgrades, made temporary improvements or put operational controls in place. However, it is more difficult to demonstrate that hazards are being controlled using a temporary improvement or operational control and certification may require that you have a plan for a permanent solution.

Environment

Why is it Important to Have an Environment Program?

After you have considered the environment of your facility and made upgrades, temporary fixes or put operational controls in place you have to monitor that the hazards are still being controlled over time. In other words, you have to make sure that the facility environment, both inside and outside continues to prevent hazards. As in all other GMP sections, the environment standards require you to have procedures and records for your employees to use when monitoring the environment.

Procedures and records should include instructions for checking for evidence of the potential hazard being controlled, not necessarily for the control that you've put in place. For example, you may install additional drains to control pooling water. The monitoring procedure should instruct the monitor to look for pooling water not simply that there are drains.

To keep it simple, we have provided one example procedure and record for each standard. However, you most likely will want to combine and separate them differently. You'll notice that there are lots of areas where you can combine procedures and records. For example:

- You could have a procedure for each room of the facility and include requirements of several standards that pertain to each room. For example, you could have a procedure for inspecting washrooms and include aspects of P9.2 (walls, floors, etc.), P9.3 (number of toilets, hand wash stations), P9.5 (ventilation, odours) and P9.7 (mirror glass, light covers, etc.).
- Another idea is to divide the procedures and records based on frequency. For example, have a procedure and record for all monitoring to be done monthly and another for monitoring that needs to be done quarterly and so on.

To cut down on paper work you may also want to combine procedures and records (see Example 11). This is okay as long as the combined document has everything that both a procedure and record should have including step-by-step instructions, and deviations and corrective actions.

P9 Environment

Exterior P9.1

Written procedures and corresponding records are in use for monitoring the facility exterior. The procedures include instructions for ensuring:

- The facility design and structure prevents entry of pests and contaminants
- The facility surroundings are maintained to prevent entry of contaminants and harbourage of pests
- Facility surroundings, property, roadways, and parking lots are free from debris

External contaminants could include; excessive dust, foul odours, smoke, airborne microbial and chemical contaminants

Suggestions to Meet the Standard

Make property or facility upgrades and/or put controls in place to protect against external contaminants and pests

- Locate your facility away from sources of external contaminants such as; landfill sites, polluted areas and swamps
    - If your facility is near a contaminated area and you are not able to relocate, you will have to put extra controls in place to protect your operation. For example, do not have any open windows, perform air testing and give special consideration to pest control.
- Pave or seal driveways and parking lots to minimize dust or mud
- Minimize shrubs, weeds and long grass, and keep the remaining vegetation well trimmed
- Have a 45 cm (18 inches) perimeter of gravel or pavement around your facility
- Install drainage if natural drainage is inadequate to prevent pooling water or flooding of the property
- Locate, design and maintain wellheads to protect against entry of contaminants into the water supply
- Remove litter
- Cover or repair any unprotected openings, e.g. repair holes in the walls, foundation and roof
- Equip ventilation air intakes and openings with close-fitting, clean screens or filters
    - Filters should be replaced or cleaned according to the frequency specified. Ensure this is included in your P5 Preventative Maintenance & Calibration program.
- Seal around pipe work
- Locate exterior lights away from doors to prevent attracting pests
- Design the facility so that handling, preparation, processing, packaging and storage areas do not open directly outside (e.g. add a vestibule or foyer)
- Install air curtains at external doorways to prevent pests from entering
- Install self-closing doors that are tight fitting, e.g. no gaps, visible light
- Do not store equipment that impacts food safety (e.g. pallets, bins, drums etc.) and construction materials outside, on the property surrounding the facility
- Seal windows shut where they pose a risk to food, ingredients, processing aids and packaging materials (e.g. handling, preparation, processing, packaging and storage areas)
    - Install screens in windows that are not sealed closed (e.g. in maintenance area, boiler room, and waste area)

P9 Environment

Suggestions to Meet the Standard

Develop procedures and records for monitoring the exterior of your facility and any controls put in place (see Examples 1 & 2)

- Include specific instructions for what to look for and where (e.g. holes in external walls, litter on the property, bird nests, any vegetation on the roof)
- Give special consideration to frequencies. It may be beneficial to divide up the procedures and records based on how often the item needs to be monitored. For example, it might be sufficient to monitor proper seals around piping annually. However, you should be monitoring other items, such as litter and shrubs, more frequently.
- It may be beneficial to combine records from other standards. For example, you may include monitoring of your outside waste storage from P3.5 Waste Management in your P9.1 Exterior record. Some activities from P6.1 Pest Control may also be combined and performed at the same time as P9.1 Exterior monitoring activities.

P9 Environment

Interior P9.2

Written procedures and corresponding records are in use for monitoring the facility interior. The procedures include instructions for ensuring:

- Floors, walls, doors, ceilings, windows and fixtures, are cleanable and are constructed and maintained so as not to contribute to contamination of the environment, food, ingredients processing aids and packaging materials
- Pooling water is prevented or controlled
- Lighting is sufficient for all activities including processing, inspection, maintenance, cleaning and sanitizing
- Water storage and distribution protects against contamination of the potable water supply
- Back-flow preventers are in place, where appropriate
- Physical or operational controls are in place to prevent cross-contamination

Suggestions to Meet the Standard

Make facility upgrades and/or put controls in place, to protect the product from contaminants

- Construct floors, walls, ceilings, windows and doors of material listed on the CFIA "Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products", or have a letter of no objection from Health Canada
    - Construct floors, walls, ceilings, windows and doors of material that is smooth, non-porous, will not contribute contamination and can withstand repeated cleaning and sanitizing
    - Wall, floor and ceiling joints should be sealed, coved where appropriate and maintained in good repair
    - Construct ceilings and fixtures (e.g. ducts, pipes, beams) to minimize the build up of dirt and condensation (e.g. no crevices or ledges, mount exposed pipes away from the wall or ceiling to allow for cleaning)
    - Construct stairs, catwalks and platforms in processing and handling areas of material that is smooth, non-porous, that will not contribute to contamination and can withstand repeated cleaning
    - Provide access to the space above drop ceilings to allow cleaning, maintenance and inspection (e.g. for pest activity)
- Windows that are located in areas where glass breakage may result in the contamination of food, ingredients processing aids or packaging materials, should be constructed of alternate materials or be adequately protected.
    - Alternative materials for window glass include shatterproof or meshed glass. If this is not possible apply a protective film to the glass surface.
- Install enough drains and sufficiently slope floors to prevent pooling water, including in the washrooms
    - If water does pool it should be addressed through operational controls. For example, you can write a procedure and train staff to squeegee water toward the drain to remove pooled water

P9 Environment

Suggestions to Meet the Standard

- Install grates in all drains. Grates should be easily removed for cleaning and inspection.
- Install sufficient lighting that does not alter the appearance of food, in all areas to properly complete tasks
    - Areas where food is inspected (e.g. sorting, returned product inspection), should have a minimum of 540 lux
    - Areas where food is processed or handled, should have a minimum of 220 lux
    - Storage areas, change rooms and corridors should have a minimum of 110 lux
    - Check legislation for your commodity or facility size, there may be different requirements for lux, e.g. under the *Food Safety and Quality Act,* 2001 (Ontario) or the *Building Code Act* (Ontario)
- Ensure that the water storage and distribution systems protect against contamination
    - Label or otherwise identify all waste lines, potable and non-potable water piping, conduits, and any other lines such as refrigeration coolant
    - Label or otherwise identify all non-potable water outlets, e.g. sprinklers
    - Non-potable water supply does not connect with the potable water supply
    - Ensure piping is designed and installed to prevent contamination, e.g. no dead ends, no lead solder, smooth welds
    - Provide hose racks for hose storage when not in use, so hoses are not left on the floor, in standing water or in containers of water including sinks and chill tanks. Consider including instructions for storing hoses in P1.1 Personnel Practices
    - Re-circulated water (unless treated to potable) should be distributed in clearly marked systems including piping, outlets, and containers that are separate from potable
    - Tanks containing cooling water used for exposed or packaged product should be drained, cleaned and sanitized regularly and refilled with potable water (remember to include tanks in your P4 Sanitation program)
- Install back-flow preventers to prevent potentially contaminated water from re-entering the facility's potable water supply
    - Back flow devices should be installed at any outlets where back-siphonage could occur (e.g. ends of hoses, taps and outlets into tanks)
    - Check legislation for your commodity or facility size, there may be specific requirements for back-flow devices, e.g. under the *Food Safety and Quality Act*, 2001 (Ontario) or the *Building Code Act* (Ontario)
    - Back-flow preventers should be accessible for inspection, if not, be prepared to demonstrate their location to an auditor, for example, with a blue print

P9 Environment

Suggestions to Meet the Standard

Make facility upgrades and/or put operational controls in place, to protect against cross-contamination

- Design the facility so that products flow in a single direction from raw to finished state and minimize employee flow to prevent cross-contamination (see P1.5 Access & Traffic Patterns for more information)
- Develop a drawing or blueprint that identifies the activities performed in each area (e.g. cooler room, equipment wash-up room, raw preparation room). Include traffic patterns of personnel, food ingredients, processing aids, packaging materials, chemicals and waste material. Identify areas where cross-contamination may occur (e.g. unclean raw vegetables versus processed vegetables, cooked foods versus raw foods, edible food versus waste) and establish controls.
- Designate rooms to separate incompatible food or activities (e.g. to separate raw product from finished or semi-finished product, to segregate allergens, garbage/inedible material or sanitation activities)
- Install physical barriers, partitions, walls, etc. to control flow and prevent cross-contamination
    - If physical separation is not possible, develop operational controls to prevent cross-contamination e.g. scheduling production so allergens are processed at end of day (see P3.3 Allergen Control for more information)
- Cross-contamination controls may include boot washes and hand sanitizers
- Locate hand sanitizers and boot washes to prevent cross-contamination, e.g. at the entrance to all food processing, handling, and storage areas, between areas where incompatible activities are performed
- Following the chemical supplier's instructions, develop a procedure and record to check and document the sanitizer concentrations to confirm it is at an effective level to control bacterial contamination. Include how often the sanitizer should be replaced. See P3.4 Chemical Control for more information.

Develop a procedure to be followed during new construction to ensure it meets the requirements of this standard

- The procedure should include an approval process to ensure the construction will satisfy all areas of your GMPs. For example, sanitation personnel should be involved to ensure the new materials are cleanable and the Food Safety Coordinator may approve the design to minimize cross-contamination
- The procedure should also include a check that the construction materials are listed on the CFIA "Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products", or have a letter of no objection from Health Canada

Develop procedures and records for monitoring the interior of your facility and the controls put in place (see Examples 3 & 4)

- Include specific instructions for what to look for and where, e.g. walls, ceilings, floors show no evidence of degradation – no flaking paint, rust, corrosion, accumulation of food residue, dust, mould
- Give special consideration to frequencies. It may be beneficial to divide the procedures and records based on how often the item needs to be monitored. For example, it might be sufficient to monitor that windows are sealed shut annually. However, you should be monitoring other items, such as the condition of floors, walls, ceilings and doors, more frequently.

P9 Environment

Personnel Facilities P9.3

Written procedures and corresponding records are in use for monitoring personnel facilities. The procedures include instructions for ensuring:

- Washrooms, personal storage facilities and a lunch room are provided, designed, equipped and maintained so as not to contribute to contamination of the environment, food, ingredients, processing aids, packaging materials and food contact surfaces
- Washrooms and lunch rooms do not open directly into food processing, handling and storage areas
- There are an adequate number of dedicated hand wash stations at processing entry ways, and in washrooms
- Hand wash stations are equipped with: constant flow of warm potable water, soap from a dispenser, sanitary hand drying equipment or supplies, a waste container and a notice instructing people to wash their hands
- Washrooms are equipped with an adequate number of flush toilets

Suggestions to Meet the Standard

Make facility upgrades and/or put controls in place, to protect the product from contaminants

- Provide a dedicated lunch room
- Provide a change room, locker or cupboard for personal storage facilities, which are cleanable
    - A designated change room is ideal to minimize the potential for cross-contamination between personal belongings, clothes, etc. and the processing environment
    - Lockers should have sloped tops so nothing can be placed on top and should not go all the way to the floor
    - P1.1 Personnel Practices should specify what and when items should be stored in personal storage facilities (e.g. food should not be stored in lockers or change rooms, lunches should be stored in the lunchroom)
- Locate washrooms, lunch rooms, so they do not open directly into handling, preparation, processing packing and storage areas
- Locate hand wash stations to prevent cross-contamination – e.g. at the entrance to all food processing, handling, and storage areas, between areas where incompatible activities are performed
    - Determine if the number of hand wash stations is adequate and install more if needed - hand wash stations should be sufficient in number to permit the flow of employees to wash hands at the required frequency and still meet the requirements of their job duties. For example: if there are not enough sinks to permit all employees to properly wash their hands after break and return to the line by the required time, the number of sinks is inadequate.
    - Dedicate hand wash stations to be used for this purpose only. Hand wash stations should not be used for cleaning equipment utensils, food or ingredients.
    - Install hands-free faucets and paper towel dispensers to minimize re-contamination of clean hands. Hands-free faucets can be operated by a sensor, knee pedal or foot pedal

P9 Environment

Suggestions to Meet the Standard

- Hand wash stations are equipped with; constant flow of warm potable water, soap from a dispenser, sanitary hand drying equipment or supplies, a waste container and a notice instructing people to wash their hands
- Single-use towels are hygienic drying supplies and should be provided at hand washing stations
- Reusable cloth towels are not acceptable
- Post signs instructing people to wash their hands above hand wash stations and entries into product handling areas (see Example 2 in P1 Personnel)
  - Public Health Unit web sites (e.g. Toronto Public Health) often have downloadable signs that are available in different languages. If you are using a hands-free hand washing station ensure the sign reflects this.

- Provide washrooms with enough flush toilets for each gender
  - For example, Ontario Regulation 31/05 for provincial slaughter and free standing meat plants requires the following:

# of persons of each gender at the facility	Minimum # of toilets for each gender
1-9	1
10-24	2
25-49	3
50-74	4
75-100	5
100 +	6 plus 1 for each additional increment of 30 persons of each gender in excess of 100

Develop procedures and records for monitoring the personnel facilities in your facility and the controls put in place (see Examples 5 & 6)

- Include specific instructions for what to look for and where, e.g. hand wash stations are not being used for any other purpose than hand washing, soap dispensers are full and there are no bottlenecks at hand wash stations after break

P9 Environment

Equipment P9.4

Written procedures and corresponding records are in use for monitoring all equipment and utensils. The procedures include instructions for ensuring:

- Equipment and utensils that may impact food safety are constructed of materials which are non-toxic, non-corrosive, non-absorbent, smooth, do not exhibit signs of degradation and can withstand repeated cleaning and sanitizing
- Equipment design, location and installation allows for effective cleaning, sanitizing, inspection, maintenance, calibration and prevents contamination of product
- Equipment is capable of meeting the food safety requirements of the process

Suggestions to Meet the Standard

Make utensil and equipment upgrades and/or put controls in place, to protect the product from contaminants

- Use utensils and install equipment that is constructed of material that is not porous, does not have pits or cracks, and will not impart any hazard to food or packaging materials (e.g. no rust, lead, or exposed wood)
    - Material should be designed for use in a food facility and be able to withstand repeated cleaning and sanitizing
- Install equipment that is designed to be easily cleaned, sanitized and inspected and prevents contamination of product
    - All areas of equipment should be accessible with no crevices, angles and ledges that can trap food
    - Open ends of tubes (e.g. legs of tables) should be sealed to prevent trapping food
    - If necessary, equipment can be dismantled for cleaning, sanitizing and inspection
    - Seams on equipment should be smoothly bonded with polished, even welds
    - Equipment should be exhausted to the exterior to prevent condensation and air quality problems
    - Install equipment with proper drainage and/or connect directly to drains, e.g. refrigeration units
    - Install equipment with sufficient space to give access under, inside and around; for cleaning, inspection, and servicing
    - Install devices to prevent contamination where needed (e.g. screens, filters, air treatment, dust extraction)
    - Install screens or filters on ventilation openings that can be easily cleaned and replaced
- Ensure equipment is capable of meeting the requirements of your process. For example, equipment should be able to reach the correct temperature, refrigeration units must be able to maintain the correct temperature, filters must be able to filter the correct size particles
    - Install monitoring devices where appropriate to monitor parameters required to maintain food safety (e.g. thermometers, and gauges)
    - Equipment permits monitoring of food safety parameters such as temperature, humidity and air flow
    - Install thermometers in all refrigerated rooms. The use of continuous recording thermometers is recommended. Probes should be located strategically in the warmest part of the room.

P9 Environment

Suggestions to Meet the Standard

- It is recommended that you have a procedure to be followed when purchasing new equipment to ensure it meets the requirements of this standard before it is purchased or put into use
    - The procedure should include an approval process to ensure the equipment will satisfy all areas of your GMPs. For example, Maintenance may approve the design and Sanitation may sign off that the equipment is cleanable

Develop procedures and records for monitoring the equipment in your facility and controls put in place (see Examples 7 & 8)

- Include specific instructions for what to look for and where, e.g. equipment has no cracks and crevices, no evidence of degradation, rust, corrosion, accumulation of food residue, dust, or mould
- Give special consideration to frequencies. It may be beneficial to divide up the procedure and records based on how often items need to be monitored. For example, it might be sufficient to monitor that equipment has been installed with enough space, annually. However, you should be monitoring other items, such as the condition of your equipment more frequently, especially those which are used daily for signs of cracks, pits, scratches, missing pieces, etc.

P9 Environment

Temperature & Ventilation P9.5

Written procedures and corresponding records are in use for monitoring temperature and ventilation. The procedures include instructions for ensuring that:

- Air exchange is sufficient to remove airborne contaminants and prevent excessive heat, steam, condensation, vapours, smoke, particulates, dust, aerosols and odours
- Ventilation does not permit air to flow from contaminated areas to clean areas
- Appropriate room temperatures are maintained to minimize micro-biological growth

Suggestions to Meet the Standard

Make equipment or facility upgrades and/or put controls in place, to protect the product from contaminants

- Install sufficient ventilation and refrigeration
    - Ventilation should be capable of preventing buildup of: condensation, heat, steam, smoke, dust, particulates, aerosols, odours
    - Ventilation should be capable of providing sufficient air exchange to maintain a clean air supply and assist in controlling temperatures
    - Ventilation in washrooms and waste storage areas should be capable of removing excess moisture and odours
    - Ventilation should maintain positive pressure in ready-to-eat or other sensitive areas
        - Positive pressure results when the pressure is higher within the room and therefore air flows out of the room. In other words, air should not be permitted to flow into sensitive areas.
        - A simple way to determine if ventilation is achieving positive pressure in a room, is to hold a tissue paper up in the doorway and see which way the tissue blows. The tissue should blow in the direction leaving the room.
    - Avoid venting directly onto food, ingredients, processing aids, packaging materials, or food contact surfaces
    - Refrigeration should be capable of maintaining appropriate temperatures to prevent microbiological growth when the area is at the maximum anticipated capacity
        - Areas where food and ingredients that are not shelf stable are processed, packaged or handled should be kept at 10°C or lower
        - Areas where food and ingredients that are not shelf stable (require refrigeration) are stored, should be kept at 4°C or lower
        - Freezers should be kept at -18°C or lower
    - When choosing and installing ventilation and refrigeration equipment, make sure it meets the requirements of P9.4 Equipment
    - Consider testing your ventilation air for microbial contaminants to ensure your ventilation system is not a source of contaminants

P9 Environment

Suggestions to Meet the Standard

Develop procedures and records for monitoring temperature and ventilation in your facility (see Examples 9 & 10)

- Include specific instructions for what to look for and where, that might indicate proper ventilation and temperatures are not being maintained, e.g. excessive heat, humidity, steam vapours, smoke, particulates, dust or condensation
- Include specific instructions for checking and ensuring acceptable temperatures for each area of the facility
- You may not have a separate record for temperature and ventilation alone, you may want to include these in other monitoring records, e.g. P9.3 Personnel Facilities, P4.2 Pre-operational Inspection
- Be sure to include ventilation and refrigeration equipment in your P5 Preventative Maintenance & Calibration program
- Be sure to include ventilation and refrigeration equipment in your P4 Sanitation program, including the cleaning and inspection of filters for air makeup units

P9 Environment

Sewage & Liquid Waste P9.6

Written procedures and corresponding records are in use for ensuring:

- Sewage and liquid waste disposal systems are designed, constructed, installed and maintained to prevent cross-contamination of food, ingredients, processing aids, packaging materials, food contact surfaces and the potable water supply
- The potable supply has no cross-connections with the non-potable, sewage and liquid waste systems

Two waste streams exist in food facilities

1. Liquid waste or "effluent" which generally consists of wash water, chill water, etc.
2. Solid waste or "sewage" which consists of human waste

Suggestions to Meet the Standard

Make facility upgrades and/or put controls in place, to protect the product from contaminants

- Design and install sewage and liquid waste systems in the facility to prevent cross-contamination
  - Segregate human waste from other waste
  - Liquid waste and sewage lines should not pass directly over or through processing areas
  - Label or colour code visible waste lines to aid in their identification. Also, consider identifying potable and non-potable water piping (e.g. sprinklers), conduits, and any other lines such as refrigeration coolant.
  - Equip liquid waste and sewage systems with traps and vents. For example, a "P" trap vented to the roof.
  - If necessary, install a catch basin or grease trap to separate solid matter from liquid waste and have it emptied at an appropriate frequency
- Ensure there are no cross-connections between non-potable and potable water lines
- Ensure that you have up-to-date blue prints that show all plumbing
  - Complete, up-to-date blue prints can be used when monitoring your sewage and liquid waste system to confirm that no changes have been made and your facility is still meeting the requirements of this standard
  - If blue prints showing piping are not available, an assessment for cross-connections must be made. One way to do this is adding a food grade dye to the piping systems to confirm no cross-connections.

Develop procedures and records for monitoring sewage and liquid waste in your facility (see Example 11)

- Include specific instructions for what to look for and where, e.g. pooling water, drips
- Remember to include the inspection and cleaning of any drains, drain channels, traps and covers in the P4 Sanitation program

P9 Environment

Glass & Brittle Material P9.7

Written procedures and corresponding records are in use for monitoring all glass and brittle materials in the facility. The procedure identifies all glass and brittle material in the facility and its location, and includes instructions for ensuring:

- Unnecessary glass or brittle material is not present
- Required glass and brittle material is used and stored only in designated areas
- Windows, gauges, lights, clocks and other permanent glass and brittle materials are protected against breakage in processing, handling and storage areas
- All glass and brittle material is intact
- Broken glass and brittle material incidents are fully controlled to protect food, ingredients, processing aids and packaging materials

Brittle material is any material that is hard or rigid, that will readily break causing a potential physical hazard, e.g. hard plastics, ceramic

Suggestions to Meet the Standard

As much as possible, eliminate glass and brittle material and replace with shatterproof materials or control them by protecting against breakage. Be prepared to provide justification for all remaining glass and brittle materials.

- Some glass or brittle material may be required in your facility such as glass packaging. In this case, special consideration and emphasis should be given to the breakage procedure (see below)
- Light bulbs should be replaced with either shatterproof bulbs or completely covered to protect product in case the bulb breaks
- Windows in processing, handling or storage areas should be replaced with either shatterproof glass or protected against breakage
- To protect against breakage, clocks should be covered with a cage. Plastic clocks are preferred to glass.
- Glass thermometers should be replaced

Develop procedures and records for monitoring all glass and brittle materials in your facility to ensure it is intact and/or protective measures are in place (see Examples 12 & 13)

- Identify all glass and brittle materials in the facility and its location including: lights, gauges, packaging materials, laboratory glass, clock faces, windows, in-line pH meters, UV lights, sight glass covers
- Include specific instructions including the exact locations and what to look for (e.g. cracks, missing parts)
- Include instructions for minimizing the movement of required glass and brittle material. For example, it should be used and stored only in designated areas. You may want to incorporate instructions into your P1 Personnel policies.

P9 Environment

Suggestions to Meet the Standard

Develop procedures and records for what to do in case of breakage (see Examples 15 & 16)

- The procedure should include instructions for:
  - Determining the affected areas and products, considering the line speed, product flow, etc.
  - Isolating and controlling the affected food, ingredients, processing aids or packaging materials, e.g. line stoppage, cordoning off the affected area
  - Considering what points in the process must be investigated (e.g. filters down the line that should be checked)
  - Clean up using designated cleaning equipment
  - Inspecting to ensure cleanup was adequate and area is safe to be re-used
- See P3.2 Handling, Defective and Suspect Items for a similar procedure

T9 Environment

Environment Training T9

Written procedures and corresponding records are in use for training on the environment program. The procedures identify:

- Personnel who require training
- The trainer
- Training material used
- Frequency of training
- Assessment method to confirm the training is understood

Training is provided prior to starting environment job duties and whenever changes are made to the environment program.

Refresher training is provided at minimum once per year.

Suggestions to Meet the Standard

Develop a training procedure (see Example 16)

- Include instructions to ensure all the appropriate personnel are present for training (e.g. cross-reference training list, training schedule and up-to-date employee lists)
- The training program for environment should address all standards within the section, and will involve employees who perform environment monitoring duties
- Materials that can be used to support training of the Environment program include:
    - Procedures developed in P9.1 – P9.7
    - Hands on training
    - Videos and other visual aids (e.g. photos)

Develop corresponding records for the training material presented: (see Example 17)

- Training records list who is in attendance, the date the training took place, the topic, the material used and the name and signature of the trainer
- The training records have space for employees to initial or sign to indicate that they received the training

Develop a method to assess and prove that employees who were trained understood the training material (see Example 18)

- For example a written or verbal test, observe the employee performing the task, job shadowing for a probation period

T9 Environment

Suggestions to Meet the Standard

Develop a training schedule. The training schedule should include the names of employees and personnel that require training.

- The training schedule is predetermined and indicates who needs to be trained and how often refresher training will occur
    - How often you have refresher training depends on your commodity, employee turnover rate and/or season of production, e.g. once per year, once per season, or every six months
- It may be easier to have one schedule for all 9 training standards (see Example 9 in P1 Personnel)

Remember to include deviations and corrective actions in training procedures (e.g. documenting employees absent from training, reassessing training materials if training is not effective)

All 9 GMP sections require training procedures and records be developed and used. You may consider combining training procedures and records for some or all 9 GMP sections. If training procedures are combined, be sure to include details from all sections in the combined procedure (e.g. materials used to train each section, detailed schedule).

V9 Environment

Environment Verification V9

Written procedures and corresponding records are in use for environment verification, which confirms at pre-determined intervals that:

- Environment monitoring activities are being performed as written
- Records are completed properly

Suggestions to Meet the Standard

Develop verification procedures

- To verify the environment program the most common method is to observe the task being performed and record whether the task is performed as written (see Example 19). Other methods include:
  - Interviewing the employees regarding the procedures and corrective actions for which they are responsible, e.g. ensuring that the designated employees are aware of temperature control and ventilation requirements
  - The verifier performs the activities written in the procedures and compares the findings to those of the designated employee. (NOTE: this method may only be carried out if the verifier and the designated employee perform the activities at the same time or within a minimal period of time from one another, so that the conditions of the activities are similar.)
- To verify that the environment records are being properly completed, all the records since the last verification should be reviewed. If no deviations are found, the number of records being verified can be decreased. Verification of the records is done to ensure that:
  - Mistakes have been crossed through with a single line and initialled by the designated employee and that liquid paper has not been used
  - Documents have been completed in ink (no pencil)
  - All records are signed and dated by the designated employee
  - No blank spaces have been left on the record, if necessary "N/A" was recorded
  - The activities have been carried out at the appropriate frequency
  - There is no evidence of falsified data entries
  - All deviations and corrective actions are documented and are suitable
  - If food safety may have been compromised, affected items were put on Hold and a Food Safety Assessment was conducted
  - If a deviation was recurring, a root cause analysis was conducted

Develop an environment verification schedule based on the risk of the activity being performed

- If poor facility conditions are found, this may indicate that verification of the facility should be increased
- If there is a high employee turnover rate in the facility, it might be necessary to increase the frequency of verification to ensure that the employee responsible for the environment monitoring is performing the activities according to the written procedures
- Generally, if the activity occurs daily then the verification would occur weekly, if the activity occurs weekly then the verification would occur monthly, and so on

Develop corresponding records for environment verification procedures, remember to include corrective actions in all procedures and records (see Example 20)

- A separate verification record can be created from the monitoring record or a column or space right on the monitoring record can be created for the verifier to record findings and to date and sign
- All procedures and records that relate to the environment program should be listed on the verification record

EXAMPLE 1

Exterior Monitoring Procedure

XYZ Food Facility	Exterior Monitoring Procedure	
	Written By: J. Caesar	Code: SOP P9.1.1

Who: Designated trained maintenance personnel **When:** Monthly

What:

1. Walk around the perimeter of the property. Inspect the property surrounding the facility for absence of:
   - Visibly polluted areas
   - Garbage on facility property or accumulated on neighbouring property (e.g. in ditches)
   - Flooded areas and/or standing water (e.g. clogged drain)
   - Operations nearby that could contribute contamination (e.g. factories emitting noxious fumes or liquid waste, new construction, public paving)
   - Excessive dust or mud
   - Overgrown weeds, grass or shrubs
   - The 48 cm (18 in.) gravel perimeter around the plant (e.g. gravel has been removed, less than 48 cm wide, does not reach all the way around the facility)
   - Vegetation growth in the 48 cm gravel perimeter
   - Seasonal equipment or pallets stored outside but not stored on the covered platform at the back of the property
   - Evidence of pests
2. Walk around the facility, and inspect walls:
   - For holes (around windows, doors, piping, etc.)
   - For missing screens or covers on vents, air intakes, windows, door in the maintenance shop and utility room (all other windows and doors must be completely closed)
   - Test exterior doors to see if self closing devices are functional and fit tightly when closed (all doors must have weather stripping)
3. Get on the roof (following Health and Safety training) to inspect for:
   - Holes (around piping, in the roof, etc.)
   - Missing screens or covers on vents and air intakes
   - Pooling water on the roof
4. Check that the air curtain at the shipping entryway is functioning
5. On RCD P9.1.1 Exterior Monitoring Record, record a "✓" for all items found to be satisfactory and an "X" for all items found to be unsatisfactory. All Xs indicate a deviation. Record all deviations and corrective actions and work order # if necessary. Print your name, then sign and date the record.
6. When complete, file all records in the Environment binder under the "Exterior" tab according to date. The Environment binder is stored in the maintenance office.
7. If corrective action isn't immediate (e.g. work order required), the Food Safety Coordinator will keep the record and will sign and date when corrective action is complete.

Deviations:	Corrective Actions:	Records:
Any item found unsatisfactory	Correct the problem if possible (e.g. pick up garbage). Put in work order to have item repaired if necessary. Inform the Food Safety Coordinator for all corrective actions that cannot be immediately completed and transfer the record to the Food Safety Coordinator. Record all corrective actions taken.	RCD P91.1 Exterior Monitoring Record
Food safety may have been compromised	Inform Supervisor. Follow Hold Procedure SOP P3.2.1.	
If deviation is recurring	Inform Supervisor who will ensure a root cause analysis is performed	

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EXAMPLE 2
Exterior Monitoring Record

XYZ Food Facility	Exterior Monitoring Record	
	Written By: J. Caesar	Code: RCD P9.1.1

Who: Designated trained maintenance personnel **When:** Monthly Date: May 23/09

What: Following SOP P9.1.1 inspect the facility exterior and surrounding property for conditions that may contribute to contamination of food, ingredients, processing aids or packaging materials. Mark each item with a "✓" if it is satisfactory or an "X" if unsatisfactory. All Xs indicate a deviation. Record the deviation and corrective action and work order # (if necessary). Sign and date the record.

Item – Check for…	✓/X	Deviations	Corrective Actions	WO #
No polluted areas	✓			
No garbage on the property	✓			
Garbage is not accumulated on surrounding property	✓			
There are no flooded areas on or near facility property	✓			
No standing water on or near facility property	✓			
Operations nearby are not emitting odours, visible fumes or other sources of airborne contamination	✓			
No excessive presence of dust or mud	✓			
No overgrown weeds or uncut grass (higher than 30 cm (12 in) on the property	X	Overgrown weeds in ditches	Informed Maintenance who immediately cut grass	
Gravel or paved perimeter around the facility with no ingrown weeds	✓			
Weeds or grass not growing in the gravel around the perimeter of the building	✓			
No equipment, pallets or construction material stored outside	✓			
No holes or cracks in the walls	✓			
Screens on maintenance shop utility room door and windows are present and intact	✓			
Screens on vents and air intakes are present and intact	✓			
No water on the roof	✓			
Exterior doors are self-closing	✓			
Exterior doors are closing tightly and weather stripping is not damaged	X	When closed, light can be seen around the employee entrance door	Put work order in to have weather stripping replaced. Informed Food Safety Coordinator Done May 24/09 John Yates (FS Coordinator)	2369
Functioning air curtain at the Shipping door	✓			

Name: (print): Shelley Franklin Signature: S Franklin

EXAMPLE 3

Interior Monitoring Procedure

XYZ Food Facility	Interior Monitoring Procedure	
	Written By: S. Hampton	Code: SOP P9.2.1

Who: Designated trained maintenance personnel **When:** Monthly (according to schedule)

What:

1. Inspect rooms according to the schedule on page 2, so that the entire facility is inspected once every month
2. To inspect, walk through the room and look at all floors, walls, ceilings, joints, doors, door frames, window frames and overhead structures. Confirm that:
   - Floors, walls, ceilings, doors, door frames, window frames, overhead structures and the platform in processing are made of smooth material with no cracks where food or dirt could get trapped
   - Floors, walls, ceilings, doors, door frames, window frames, overhead structures and the platform in processing are in good repair and show no sign of damage or degradation (e.g. flaking paint, rust)
   - There are no surfaces made of exposed wood
   - Joints between the floor and wall are coved
   - There are no spots where dirt, dust and food is accumulating on overhead structures (e.g. on top of duct work or beams)
   - There is no pooling water, and that all water flows toward a drain
   - There are covers/grates on all drains
   - All windows (except in the Maintenance shop and the utility room) are fixed in place (e.g. you can't open them)
   - Hose racks are present for storage of all hoses
   - There is a back flow device installed at all water outlets (e.g. chill tank, wash-up area, processing sanitation hose outlet)
3. Using the Lux meter stored in the maintenance shop, test the light intensity (brightness) lux in all areas of the facility by holding the meter at the work surface level to take readings. Record the reading on RCD P9.2.1. Lux requirements are as follows:
   - 110 for dry storage, both coolers, the freezer, washrooms, lunch room, locker room and utility room
   - 220 for the processing area (other than the sorting station), packaging, receiving/shipping and wash-up area
   - 540 for the sorting station and the returned product examination area
4. Check that there is a boot wash and hand sanitizer at the entrance to the processing area
5. For any new construction check that "SOP P9.2.2 Approving New Construction" was followed and the new construction was added to Interior Monitoring Procedure and Record (SOP P9.2.1 Interior Monitoring Procedure and RCD P9.2.1 Interior Monitoring Record)
6. Check that the partition is in place in the processing room and that ingredients enter on one side of the partition and finished products flow into the packaging areas on the other side
7. On RCD P9.2.1 Interior Monitoring Record, record a "✓" for all items found to be satisfactory and an "X" for all items found to be unsatisfactory or NA for new construction if there is no new construction. All Xs indicate a deviation. Record all deviations and corrective actions and work order # if necessary. Print your name, then sign and date the record.
8. When complete, file all records in the Environment binder under the "Interior" tab according to date. The Environment binder is stored in the maintenance office.
9. If corrective action isn't immediate (e.g. work order required), the Food Safety Coordinator will keep the record and will sign and date when corrective action is complete

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EXAMPLE 3 (continued)
Interior Monitoring Procedure

XYZ Food Facility	Interior Monitoring Procedure	
	Written By: S. Hampton	Code: SOP P9.2.1

Schedule	January				February				March			
Week	1	2	3	4	1	2	3	4	1	2	3	4
Room	Inspect											
Dry Storage & Utility Room, Wash-up Area	✓				✓				✓			
Processing Room & Packaging Area		✓				✓				✓		
Coolers & Freezer, Receiving/Shipping Area			✓				✓				✓	
Washrooms, Lunch & Locker Rooms				✓				✓				✓
Schedule	**April**				**May**				**June**			
Week	1	2	3	4	1	2	3	4	1	2	3	4
Room	Inspect											
Dry Storage & Utility Room, Wash-up Area	✓				✓				✓			
Processing Room & Packaging Area		✓				✓				✓		
Coolers & Freezer, Receiving/Shipping Area			✓				✓				✓	
Washrooms, Lunch & Locker Rooms				✓				✓				✓
Schedule	**July**				**August**				**September**			
Week	1	2	3	4	1	2	3	4	1	2	3	4
Room	Inspect											
Dry Storage & Utility Room, Wash-up Area	✓				✓				✓			
Processing Room & Packaging Area		✓				✓				✓		
Coolers & Freezer, Receiving/Shipping Area			✓				✓				✓	
Washrooms, Lunch & Locker Rooms				✓				✓				✓
Schedule	**October**				**November**				**December**			
Week	1	2	3	4	1	2	3	4	1	2	3	4
Room	Inspect											
Dry Storage & Utility Room, Wash-up Area	✓				✓				✓			
Processing Room & Packaging Area		✓				✓				✓		
Coolers & Freezer, Receiving/Shipping Area			✓				✓				✓	
Washrooms, Lunch & Locker Rooms				✓				✓				✓

Deviations:	Corrective Actions:	Records:
Any items found unsatisfactory	Correct the problem if possible (e.g. put grate on the drain). Put in work order to have item repaired if necessary. Inform the Food Safety Coordinator for all corrective actions that cannot be immediately completed and transfer the record to the Food Safety Coordinator. Record all Corrective Actions taken.	RCD P9.2.1 Interior Monitoring Record
Food safety may have been compromised	Inform Supervisor. Follow Hold Procedure SOP P3.2.1.	
If deviation is recurring	Inform Supervisor who will ensure a root cause analysis is performed	

EXAMPLE 4

Interior Monitoring Record

XYZ Food Facility	Interior Monitoring Record	
	Written By: S. Hampton	Code: RCD P9.2.1

Who: Designated trained maintenance personnel	**When:** Monthly

What: Following SOP P9.2.1 inspect the facility interior for conditions that may contribute to contamination of food, ingredients, processing aids or packaging materials. Mark each item with a "✓" if it is satisfactory or an "X" if unsatisfactory or N/A for new construction if there is no new construction. Record the lux reading in the space provided.
All Xs indicate a deviation. Record the deviation, corrective action and work order # (if necessary) before signing and dating.

Item – Check for…	**✓/X or NA**	**Deviations**	**Corrective Actions**	**WO #**
Dry Storage & Utility Room, Wash-up Area			Date: *January 9/09*	
Floors are not damaged or cracked	✓			
Walls and ceiling are not damaged or cracked, no flaking paint	✓			
Doors and door frames are not damaged or cracked, no flaking paint	✓			
Window frames and overheads are not damaged or cracked	✓			
There are no exposed wood surfaces	✓			
There is no pooling water on the floor	✓			
Drain grates are in place on all drains (one in the Utility room and, two in Wash-up Area)	✓			
The windows in dry storage and the wash-up area will not open	X	*Seal has come off the window and it is easy to open*	*Put work order in to have window sealed in place.* *Informed Food Safety Coordinator* In the meantime put sign on the window to remind staff to keep it closed John Yates (FS Coordinator). WO Done Jan. 21/09	*9638*
There are enough hoses racks to store hoses off the floor	✓			
Back flow device in utility room and wash-up area	✓			
Lux (110) Dry Storage: 121 Utility Room: 113	✓			
SOP P9.2.2 Approving New Construction was followed for new construction	*NA*			
New construction is included in SOP/RCD	*NA*			
Name: (print) *Ken Perry*			Signature: *Kenneth Perry*	

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EXAMPLE 4 (continued)
Interior Monitoring Record

XYZ Food Facility	Interior Monitoring Record	
	Written By: S. Hampton	Code: RCD P9.2.1

Item – Check for…	✓/X or NA	Deviations	Corrective Actions	WO #
Processing Room & Packaging Area			Date: January 9/09	
Floors are not damaged or cracked	✓			
Walls and ceiling are not damaged or cracked	✓			
Doors and door frames are not damaged or cracked	✓			
Window frames and overheads are not damaged or cracked	✓			
Platform is not damaged or cracked	✓			
There are no exposed wood surfaces	✓			
Joints are coved	✓			
There is no pooling water on the floor	✓			
For a grate in all drains (two in Processing, one in Packaging)	✓			
The windows will not open	✓			
There are enough hoses racks to store hoses off the floor	✓			
Back flow device in utility room and wash-up area	✓			
Lux (200) Processing Room: 211 Packaging Area: 175	X	Lux reading is too low in packaging area, light not bright enough	Informed maintenance and immediately had light bulb replaced	
Boot wash and hand sanitizer are in place and are filled	✓			
Partition is in place and effective	✓			
Name: (print) Frank Land			Signature: F. Land	
Coolers and Freezer, Receiving/Shipping Area			Date: January 19/09	
Floors are not damaged or cracked	✓			
Walls and ceiling are not damaged or cracked	✓			
Doors and door frames are not damaged or cracked	✓			

continued…

EXAMPLE 5

Personnel Facilities Monitoring Procedure

XYZ Food Facility	Personnel Facilities Monitoring Procedure	
	Written By: Agnes Glen	Code: SOP P9.3.1

Who: Designated trained maintenance personnel

When: Daily, Weekly (on Mondays), or Annually (during the first week of January)

What:

Daily

Inspect all hand wash stations (one each in Receiving/Shipping area, Dry storage, Packaging Area, Wash-up Area, and two in each of the washrooms and two at the entrance to the processing area) to confirm that:

- There are enough hand wash sinks (e.g. employees don't get backed up at sinks entering the processing room after breaks)
- There are no signs that hand wash sinks are being used for purposes other than hand washing (e.g. utensils or food in sink)
- All hand wash stations are equipped with:
  - Warm running water
  - Soap dispenser with liquid soap
  - Sanitizer dispenser with hand sanitizer
  - Paper towel in a dispenser (e.g. not set on the sink)
  - Waste container
  - Hand washing sign
- That hands-free faucets are working

Check all 10 hand wash stations for all of the above before recording a check mark on RCD P9.3.1 Personnel Facilities Monitoring Record

Weekly

Inspect the washrooms, lunch room and locker rooms to confirm that:

- The lunch room isn't being used for other purposes (e.g. storage of packaging, ingredients, equipment or any other production activities)
- Locker rooms are not being used for purposes other than personal storage and changing
- There are no signs that food (e.g. personal lunches) are stored in the locker rooms
- There are enough lockers for all employees to store personal items (items should not be stored on benches or floor in locker room)

Annually

Inspect the washrooms, lunch room and locker rooms to confirm that:

- The washrooms do not open into areas where food, ingredients, processing aids or packaging materials are stored or handled
- There are enough toilets for the number of employees (check with office for current number of employees)
  - If there are less than 24 of one gender we have enough toilets (we must have two toilets for each gender)
  - If there are more than 24 of one gender we must have three toilets for each gender (notify management if # of employees is higher than 24, more toilets may need to be installed)
- The lunch room does not open into an area where food, ingredients, processing aids or packaging materials are stored or handled (e.g. the hall outside the lunch room is not used for storing any packaging materials)
- Locker rooms do not open into an area where food, ingredients, processing aids or packaging are stored or handled
- Lockers do not have flat tops and do not reach the floor

On RCD P9.3.1, P9.3.2 and P9.3.3 (the Daily, Weekly and Annual Personnel Facilities Monitoring Record respectively), record a "✓" for all items found to be satisfactory and an "X" for all items found to be unsatisfactory. All Xs indicate a deviation. Record all deviations and corrective actions and work order # if necessary. Print your name, then sign and date the record.

EXAMPLE 5 (continued)

Personnel Facilities Monitoring Procedure

XYZ Food Facility	Personnel Facilities Monitoring Procedure	
	Written By: Agnes Glen	Code: SOP P9.3.1

When complete, file all records in the Environment binder under the "Personnel" tab according to date. The Environment binder is stored in the maintenance office. If corrective action isn't immediate (e.g. work order required), the Food Safety Coordinator will keep the record and will sign and date when corrective action is complete.

Deviations:	Corrective Actions:	Records:
Any items found unsatisfactory	Correct the problem if possible (e.g. refill soap dispensers). Put in work order to have item repaired if necessary. Inform the Food Safety Coordinator for all Corrective Actions that cannot be immediately completed and transfer the record to the Food Safety Coordinator. Record all corrective actions taken.	RCD P9.3.1 Daily Personnel Facilities Monitoring Record
Food safety may have been compromised	Inform Supervisor. Follow Hold Procedure SOP P3.2.1.	RCD P9.3.2 Weekly Personnel Facilities Monitoring Record
If deviation is recurring	Inform Supervisor who will ensure a root cause analysis is performed	RCD P9.3.3 Annual Personnel Facilities Monitoring Record

EXAMPLE 6

Personnel Facilities Monitoring Record

XYZ Food Facility	Daily Personnel Facilities Monitoring Record	
	Written By: A. Priestly	Code: RCD P9.3.1

Who: Designated trained maintenance personnel **When:** Daily **Date:** June 6/09

What:
Following SOP P9.3.1 inspect personnel facilities for conditions that may contribute to contamination of food, ingredients, processing aids or packaging materials. Mark each item with a "✓" if it is satisfactory or an "X" if unsatisfactory. All Xs indicate a deviation. Record the deviation and corrective action and work order # (if necessary). Sign and date the record.

Item – Check for…	✓/X	Deviations	Corrective Actions	WO #
Check all 10 hand wash stations before recording a check mark				
Enough sinks for employees	✓			
Sinks only used for hand washing	✓			
Sinks have: Hot & Cold water	X	No hot water at processing room hand wash stations (employees not washing hands for appropriate time, because water is extremely cold)	Informed Food Safety Coordinator. Instructed employees to use hand wash station in packaging area. Supervisor monitored. Put work order in. Done Jun 7/09 John Yates (F.S. Coordinator)	9563
Soap	✓			
Sanitizer	✓			
Paper towel in a dispenser	✓			
Garbage can	✓			
Hand washing sign	✓			
Knee pedal on faucet is working	✓			

Name: (print) A. Priestly Signature: Avery Priestly

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EXAMPLE 6 (continued)

Personnel Facilities Monitoring Record

XYZ Food Facility	Daily Personnel Facilities Monitoring Record	
	Written By: A. Priestly	Code: RCD P9.3.2

Who: Designated trained maintenance personnel **When:** Weekly (Mondays) **Date:** June 15/09

What:
Following SOP P9.3.1 inspect personnel facilities for conditions that may contribute to contamination of food, ingredients, processing aids or packaging materials. Mark each item with a "✓" if it is satisfactory or an "X" if unsatisfactory. All Xs indicate a deviation. Record the deviation and corrective action and work order # (if necessary). Sign and date the record.

Item – Check for…	✓/X	Deviations	Corrective Actions	WO #
Lunch room isn't used for storage, etc.	✓			
Lockers are only used for personal storage	✓			
Lockers are not used for storage of food	X	Fruit flies in locker room. Inspected employee lockers and found food.	Informed Food Safety Coordinator and Supervisor. Food removed and locker cleaned. Verbal warnings given to individuals. Conducted refresher food safety training. Done June 15/09 (F.S. Coordinator)	
There are enough lockers for all employees	✓			
Name: (print) A. Priestly			Signature: Avery Priestly	

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EXAMPLE 6 (continued)

Personnel Facilities Monitoring Record

XYZ Food Facility	Daily Personnel Facilities Monitoring Record	
	Written By: A. Priestly	Code: RCD P9.3.3

Who: Designated trained maintenance personnel **When:** Annually (first week of January)	**Date:** Jan. 6/09

What:
Following SOP P9.3.1 inspect personnel facilities for conditions that may contribute to contamination of food, ingredients, or packaging materials. Mark each item with a "✓" if it is satisfactory or an "X" if unsatisfactory. All Xs indicate a deviation. Record the deviation and corrective action and work order # (if necessary). Sign and date the record.

Item – Check for…	✓/X	Deviations	Corrective Actions	WO #
Washrooms do not open into food/packaging areas	✓			
# of toilets is sufficient # of female employees: 20 # of male employees: 22	✓			
Lunch room does not open into food/ packaging areas	✓			
Locker rooms do not open into food/ packaging areas	✓			
Locker tops are sloped and bottoms are off the floor	✓			
Name: (print) A. Priestly			Signature: Avery Priestly	

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EXAMPLE 7

Equipment Monitoring Procedure

XYZ Food Facility	Equipment Monitoring Procedure	
	Written By: S. Hampton	Code: SOP P9.4.1

Who: Designated trained maintenance personnel **When:** Monthly

What:

1. Before production begins in the morning, inspect all equipment and utensils in the facility. Using a flash light if necessary, inspect all parts of the equipment (underside, inside, on top etc.) Disassemble the equipment if necessary to see all surfaces. Look for:
   - Corrosion (e.g. rust), peeling paint
   - Signs that surfaces are absorbing any substances (e.g. discolouration)
   - Rough, cracked or pitted surfaces (e.g. welds)
   - Any other damage or degradation (e.g. worn or thinning surfaces)
   - Exposed wood (e.g. handles)
   - Inaccessible areas of the equipment that either cannot be clearly inspected, cannot be well-drained and/or could trap food and dirt (e.g. open tubular legs, crevices between moving parts)
2. While inspecting equipment, confirm that:
   - There is enough room around equipment to easily manoeuvre around it while performing production tasks (e.g. employees can fit past the mixer while carrying bins)
   - There is an intact screen on the bulk tank and it can be removed for inspection and cleaning
3. For any new equipment or utensils (new since the last Equipment Monitoring) check that "SOP P9.4.2 Approving New Equipment" was followed and the new equipment was added to the RCD P9.4.1 Equipment Monitoring Record
4. On RCD P9.4.1 Equipment Monitoring Record, record a "✓" for all items found to be satisfactory and an "X" for all items found to be unsatisfactory or N/A items that do not apply to a particular utensil or equipment. Record N/A also, if there are no new utensils or equipment. All Xs indicate a deviation. Record all deviations and corrective actions and work order # if necessary. Print your name, then sign and date the record.
5. When complete, file all records in the Environment binder under the "Equipment" tab according to date. The Environment binder is stored in the maintenance office.

Deviations:	**Corrective Actions:**	**Records:**
Any items found unsatisfactory	Put in work order to have item repaired if necessary. Inform the Food Safety Coordinator and transfer the record to him/her. The Food Safety Coordinator will record all Corrective Actions taken.	RCD P9.4.1 Equipment Monitoring Record
Food safety may have been compromised	Inform Supervisor. Follow Hold Procedure SOP P3.2.1.	
If deviation is recurring	Inform Supervisor who will ensure a root cause analysis is performed	

EXAMPLE 8

Equipment Monitoring Record

XYZ Food Facility	Equipment Monitoring Record	
	Written By: A. Priestly	Code: RCD P9.4.1

Who: Designated trained maintenance personnel	**When:** Monthly	**Date:** *June 6/09*

What: Following SOP P9.4.1 inspect equipment for conditions that may contribute to contamination. Mark each item with a "✓" if it is satisfactory or an "X" if unsatisfactory. All Xs indicate a deviation. Record the deviation and corrective action and work order # (if necessary). Sign and date the record.

	Slicer	Bins	Bulk Tank	Cutting Boards	Mixer	Table	Hopper	Injector	Chutes	Conveyor A	Conveyor B	Reefer	Scoops	Knives	Brooms
No corrosion, rust discolouration	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
No rough, cracked or pitted surfaces	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
No other damage or degradation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
No wood	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X
No inaccessible areas/parts	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Room to move around equipment	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Screen on bulk tank present and accessible	✓														
SOP P9.4.2 Approving New Equipment was followed for new equipment	X														
New equipment is included on SOP/RCD	*N/A*														
Deviations:	*Wood handled broom found in processing room*														
Corrective Actions:	*Removed broom. Replacement ordered. Informed Food Safety Coordinator who trained office staff on SOP P9.4.2 Approving New Equipment*														
Name: (print) *Jim Packet*									Signature: *Jim Packet*						

continued...

EXAMPLE 9

Temperature Control & Ventilation Monitoring Procedure

XYZ Food Facility	Temperature Control & Ventilation Monitoring Procedure	
	Written By: Agnes Glen	Code: SOP P9.5.1

Who: Designated trained maintenance personnel **When:** Daily

What:

1. During operation, inspect all rooms of the facility including; Dry Storage, Utility Room, Coolers A & B, Freezer, Processing Room, Packaging Area, Washrooms, Lunch Room, Locker Room, Receiving/Shipping Area and Wash-up Area; for proper ventilation. Walk through each room of the facility and look for absence of:
   - Steam
   - Smoke
   - Dust
   - Odours
2. Inspect each room for condensation and high humidity:
   - Is there condensation/water collecting on the ceiling or other horizontal surfaces?
   - Is there any ice build up in cooler/freezer?
   - Does it feel humid or muggy?
   - Are there signs of mould?
3. Check for positive pressure within the processing room/packaging area by holding a clean tissue up to the space between the swing doors at both the entrance to Cooler A and the entrance to Receiving/Shipping. Confirm the tissue blows toward Cooler A and Receiving/Shipping respectively.
4. Check the wall thermometers in each room for the correct temperature (see correct temperatures below)
   - Processing Room, Packaging Area, Receiving/Shipping – 10°C or less
   - Both Coolers – 4°C or less
   - Freezer – -18°C or less
5. On RCD P9.5.1 Temperature & Ventilation Monitoring Record, record a "✓" for all items found to be satisfactory and an "X" for all items found to be unsatisfactory. All Xs indicate a deviation. Record all deviations and corrective actions and work order # if necessary. Print your name, then sign and date the record.
6. When complete, file all records in the Environment binder under the "Temp./Vent." tab according to date. The Environment binder is stored in the maintenance office.

Deviations:	Corrective Actions:	Records:
Temperatures too high	Contact Maintenance to have reefers adjusted. Follow SOP P3.2.1 Hold Procedure for all product in the room Inform Food Safety Coordinator who will conduct a Food Safety Assessment and will determine what to do next.	RCD P9.5.1 Temperature & Ventilation Monitoring Record
Condensation	Follow SOP P3.2.1 Hold Procedure for all product that could have been dripped on. Transfer the record to the Food Safety Coordinator who will conduct a Food Safety Assessment and will determine what to do next.	
Any other items found unsatisfactory	Put in work order to have item repaired if necessary. Transfer the record to the Food Safety Coordinator and transfer the record to the him/her. The Food Safety Coordinator will record all corrective actions taken	
Food safety may have been compromised	Inform Supervisor. Follow SOP P3.2.1 Hold Procedure.	
If deviation is recurring	Inform Supervisor who will ensure a root cause analysis is performed	

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EXAMPLE 10

Temperature Control & Ventilation Monitoring Record

XYZ Food Facility	Temperature Control & Ventilation Monitoring Record	
	Written By: A. Priestly	Code: RCD P9.5.1

Who: Designated trained maintenance personnel **When:** Daily Date: March 7/09

Item – Check for…	✓/X	Deviations	Corrective Actions
Dry Storage			
No steam, smoke, dust	✓		
No odours	✓		
No condensation	✓		
Utility Room			
No steam, smoke, dust	✓		
No odours	✓		
No condensation	✓		
Cooler A			
No steam, smoke, dust	✓		
No odours	✓		
No condensation or ice build up	✓		
Temperature (4°C or less): 6 °C	X	Temperature too high. Found to be too high repeatedly in the last week.	Adjust reefer and 4 C reached. Put all product in the room on hold. Informed Food Safety Coordinator. Conducted a Food Safety Assessment and investigated the root cause. Found the cooler door has been propped open and reefers cannot maintain appropriate temp. Door stops removed from the area and staff retrained on the importance of maintaining correct temperatures See Food Safety Assessment Record RCD P3.2.2. John Yates (Food Safety Coordinator)
Cooler B			
No steam, smoke, dust	✓		
No odours	✓		
No condensation or ice build up	✓		
Temperature (4°C or less): 3 °C	✓		
Processing Room			
No steam, smoke, dust	✓		
No odours	✓		
No condensation or humidity	✓		
Positive pressure is maintained	✓		
Name: (print) Benjamin Langdon			Signature: Benny Langdon

continued…

EXAMPLE 11

Sewage & Liquid Waste Monitoring Procedure & Record (combined)

XYZ Food Facility	Sewage & Liquid Waste Monitoring Procedure and Record	
	Written By: Demetria Maxwell	Code: SOP/RCD P9.6.1

Who: Designated trained maintenance personnel	**When:** Annually
Date: Jan. 28/10	

What:

Walk around the facility comparing facility blue prints of piping layout to the actual, visible piping locations to determine if blue prints are still current and are an accurate representation of the facilities sewage and liquid waste system. Walking around the facility and using the blue prints, answer the following questions.

All "X"s indicate a deviation. Record all deviations and corrective actions and work order #s if necessary. Print your name, then sign and date the record. When complete, file all records in the Environment binder under the "Sewage" tab according to date. The Environment binder is stored in the maintenance office.

Item – Check for…	✓/X	Deviations	Corrective Actions	WO #
Is piping free from drips?	✓			
Is the facility free of pooling water (e.g. no drains backed up)?	✓			
Are all pipes labelled?	✓			
Are sprinklers throughout the plant (one in every room including the hallway, three in processing) labelled as "non-potable"?	✓			
Are there no sewage or effluent lines running through areas with food, ingredients, processing aids or packaging materials?	✓			
Do blue prints appear to match the facility?	✓			
On the blue prints, is sewage separated from other liquid waste?	✓			
On the blue prints, are there no cross-connections between potable and non-potable lines?	✓			

Name: (print) Benjamin Langdon	Signature: Benjamin Langdon

Deviations:	**Corrective Actions:**
Any item found unsatisfactory	Inform the Food Safety Coordinator and transfer the record to them. Record all corrective actions taken.
Food safety may have been compromised	Inform Food Safety Coordinator. Follow Hold Procedure SOP P3.2.1.
If deviation is recurring	Inform Food Safety Coordinator who will ensure a root cause analysis is performed

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EXAMPLE 12

Glass & Brittle Material Monitoring Procedure

XYZ Food Facility	Glass & Brittle Material Monitoring Procedure	
	Written By: S. Hampton	Code: SOP P9.7.1

Who: Designated trained maintenance personnel **When:** Weekly

What:

1. According to RCD P9.7.1 inspect each room for glass and brittle materials and shatter-proofing (shatterproof bulbs, covers, window coatings, cages). Inspect each item to ensure it is in its correct location and intact (e.g. not cracked or otherwise damaged).
2. While walking around the facility, check each room for glass or brittle material that is not included in RCD P9.7.1 and therefore is not permitted in the facility (e.g. beverage containers, lab equipment)
3. While walking around the facility, check each room for any glass jars used for packaging, they shouldn't be anywhere but in the packaging area
4. On RCD P9.7.1 Glass & Brittle Material Monitoring Record, record a "✓" for all items found to be satisfactory and an "X" for all items found to be unsatisfactory. All Xs indicate a deviation. Record all deviations and corrective actions and work order # if necessary. Print your name, then sign and date the record.
5. When complete, file all records in the Environment binder under the "Glass" tab according to date. The Environment binder is stored in the maintenance office.

Deviations:	Corrective Actions:	Records:
Glass or brittle item listed on RCD P9.7.1 not in correct location	Inform Food Safety Coordinator and Supervisor who will retrain employees and/or take disciplinary action	RCD P9.7.1 Glass & Brittle Material Monitoring Record
Glass or brittle item shows cracks or other signs of damage Glass or brittle item is missing	If no pieces are missing, dispose of the item and put in a work order to have it replaced. Inform Supervisor and Food Safety Coordinator. If item or pieces are missing immediately stop the line and follow SOP P9.7.2 Breakage Procedure.	
Food safety may have been compromised	Inform Supervisor and Food Safety Coordinator immediately stop the line and follow SOP P9.7.2 Breakage Procedure.	
If deviation is recurring	Inform Food Safety Coordinator who will ensure a root cause analysis is performed	

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EXAMPLE 13

Glass & Brittle Material Monitoring Record

XYZ Food Facility	Glass & Brittle Material Monitoring Record	
	Written By: A. Priestly	Code: RCD P9.7.1

Who: Designated trained maintenance personnel **When:** Weekly

What: Following SOP P9.7.1 check for conditions that may contribute to contamination of food, ingredients, or packaging materials. Mark each item with a "✓" if it is satisfactory or an "X" if unsatisfactory. All Xs indicate a deviation. Record the deviation and corrective action and work order # (if necessary). Sign and date the record.

Date: January 29/09

Item – Check for…	Location	✓/X	Deviations	Corrective Actions	WO #
Dry Storage					
Bulbs are shatterproof	- 2 lights on ceiling - 1 emergency exit	✓			
Scale face intact, no cracks	- scale	✓			
Windows have shatterproof covering	- 2 windows	✓			
Utility Room					
Lights have covers	- 1 light on ceiling - 1 emergency exit	✓			
Shatterproof coating on window	- 1 window	✓			
Gauge face intact, no cracks	- boiler	✓			
Cooler A					
Thermometer face intact, no cracks	- wall thermometer	✓			
Light bulbs are shatterproof	- 3 rows of lights on ceiling - 1 emergency exit	✓			
Processing Room					
Clock is protected with a cage	- wall	X	Cage over clock has come loose, not secured to wall	Informed Supervisor and employees. Cordoned off the area so, no product will be put below the clock. Put work order in to have clock cage secured to the wall. Done Jan. 29/09	2159
continued…					
No glass or brittle material found that is not listed on this record		✓			
No glass packaging jars found in areas other than packaging area		✓			
Name: (print) Benjamin Langdon				Signature: Benny Langdon	

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EXAMPLE 14

Glass & Brittle Material Breakage Procedure

XYZ Food Facility	Glass & Brittle Material Breakage Procedure	
	Written By: Martin Long	Code: SOP P9.7.2

Who: Trained personnel, Area Supervisor and Food Safety Coordinator **When:** When glass or brittle material breaks

What:

1. When any glass or brittle item is found broken or otherwise damaged and food, ingredients, processing aids or packaging material may have been affected, stop the line, inform the Supervisor and the Food Safety Coordinator
2. Supervisor will instruct personnel to stop movement of all food, ingredients, processing aids and packaging material
3. Supervisor will instruct Personnel not to move from their current location unless medical attention is needed
4. The Food Safety Coordinator will investigate to determine the product that may have been affected, considering:
   - where all food, ingredients, processing aids and packaging materials were at the time of the breakage
   - where all personnel were at the time of the breakage
   - line speed how long ago the item broke (if it is unknown when the breakage occurred, consider product since last successful glass and brittle material check)
5. The Food Safety Coordinator will put all potentially affected items on Hold following SOP P3.2.1 and will conduct a Food Safety Assessment for the affected product.
6. The Food Safety Coordinator will instruct employees to remove or protect all food, ingredients, processing aids and packaging material deemed safe (unaffected by the breakage) to prepare for clean-up
7. The Supervisor will oversee clean-up of the area following the appropriate Sanitation SOPs for the affected area. After clean up, special attention must be given to inspection of the clothes/boots that clean up crew used during the clean up.
8. The Food Safety Coordinator will inspect the area and release the room back to production
9. The Food Safety Coordinator will investigate if steps can be taken to prevent similar breakage from happening, this may include a root cause analysis. Include the results of this investigation on RCD P9.7.2
10. The Food Safety Coordinator completes RCD P9.7.2 Glass & Brittle Material Breakage Record. Record a brief description of the breakage including what broke and where. Record a "✓" for each completed step and an "X" for any deviations encountered. Record product information and all deviations and corrective actions and work order # if necessary. Print your name, then sign and date the record.
11. When complete, file all records in the Environment binder under the "Breakage" tab according to date. The Environment binder is stored in the maintenance office.

Deviations:	Corrective Actions:	Records:
Personnel move around after breakage	Inform Food Safety Coordinator who will factor this movement in when determining affected product. Inform Supervisor who will provide refresher training on the breakage procedure and take disciplinary action if appropriate.	RCD P9.7.2 Glass & Brittle Material Breakage Record
If deviation is recurring	Food Safety Coordinator will ensure a root cause analysis is performed	

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EXAMPLE 15

Glass & Brittle Material Breakage Record

XYZ Food Facility	Glass & Brittle Material Breakage Record	
	Written By: A. Priestly	Code: RCD P9.7.2

Who: Food Safety Coordinator	Date: February 20/09

When/What: When necessary due to glass or brittle material breakage follow the steps below and complete the record. Mark each step with a "✓" if it was completed satisfactorily or an "X" if unsatisfactory. All Xs indicate a deviation. Record the deviation and corrective action and work order # (if necessary). Sign and date the record.

Description:
Employees were horse playing and broke the glass face of the scale in Dry Storage

Steps	✓/X	Deviations	Corrective Actions
1. Stop the line	X	The line was not immediately stopped	Factored line speed in when determining the affected product (i.e. took more product than if the line had been stopped immediately). Employees will be re-trained on breakage procedure. See RCD P9.1 Training Record.
2. Inform Supervisor	✓		
3. Inform Food Safety Coordinator	✓		
4. Stop movement of food, ingredients, processing aids and packaging material	✓		
5. Stop movement of employees	✓		
6. Investigate effected items, considering all factors	✓		
7. Follow SOP P3.2.1 Hold procedure	✓		
8. Remove unaffected product or protect before clean-up of the area	✓		
9. Follow sanitation SOPs	✓		
10. Release the room before production start up	✓		

Description of affected product including amount and location	≤ 16 bag of cinnamon and 2 totes of powdered milk were open and exposed on the shelf beside the scale in Dry Storage. All other ingredients in the room were completely covered.
Lot codes/identification of affected product	Cinnamon 263-596 Powdered Milk 03-Jan-09
Investigated future steps that can be taken to prevent similar breakage	Both affected ingredients were disposed of as contaminated and inedible. Employees will receive re-fresher training in Food Safety and Health & Safety particularly regarding horseplay. Employees all received a verbal warning (Level 1). One employee with a past verbal warning received a written warning (Level 2). Replaced glass face with non-breakable material.
Name: (print) Martin Long	Signature: M. Long

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EXAMPLE 16

Environment Training Procedure

XYZ Food Facility	Environment Training Procedure	
	Written By: A. Priestly	Code: SOP T9

Who: Food Safety Coordinator or Maintenance Supervisor will deliver training to personnel who will be responsible for environment monitoring duties

When:

- Prior to designated personnel, performing environment monitoring duties
- Yearly refresher training
- When changes are made to the environment program
- As needed if deviations are found

What:

1. Ensure all appropriate trainees are present by cross-referencing the personnel staff list, Master Training Schedule and Human Resources, new hiring lists

Training for Environment activities will consist of in-class and demonstration/hands-on training

2. Train in-class by presenting:
   - Procedures and records from P9 – Environment
3. Individual training sessions will be held for each area of the Environment program (exterior, interior, equipment, etc). Each training session will be split into two parts:
   Part 1: in class session where environment procedures, associated records and the importance of the facility environment are taught. The in-class session will be based on Environment procedures and records from P9.
   Part 2: hands on training which will involve
   First: job shadowing while the Food Safety Coordinator performs the environment monitoring procedures
   Second: the trainee performs the environment monitoring while the Food Safety Coordinator watches
4. After in-class and demonstrations are complete, have all trainees complete the RCD P9.2 Environment Training Assessment. Trainees must get at least 8 out of 10 to pass the Assessment and complete the training.
5. Upon completion of training, record your (trainer) name, your signature, the date and the type of training on RCD T9.1 Environment Training Record. Have each trainee record their name and signature.

Deviations:	Corrective Actions:	Records:
Employee is absent from training	Train the employee before they start/return to work	RCD T9.1 Environment Training Record RCD T9.2 Environment Training Assessment
Employee did not pass the environment training assessment	Retrain employee including hands-on portion and re-administer environment training assessment until a passing grade is achieved	

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EXAMPLE 17
Environment Training Record

XYZ Food Facility	Environment Training Record	
	Written By: A. Priestly	Code: RCD T9.1

Date of Training Session: April 3/09

Trainer's Name: Robert McGee **Signature of Trainer:** Bob McGee

Area of Environment Program trained: Interior and Equipment

Training materials presented: Environment procedures and records from P9 (SOP/ RCD P9.2.1 and SOP/RCD P9.4.1)

Name of Trainee (please print clearly)	Signature of Trainee
My signature verifies that I have received the training listed above and that I fully understand the training I received.	
Avery First	Avery First
Susan Chang	S. Chang
Frank Goldstein	Frank Goldstein

All employees listed (and as indicated on the Training Schedule) must receive the training prior to starting Environment job duties. If an employee is not present for the training session they must be trained upon their return to work.

Deviations:	Corrective Actions:

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EXAMPLE 18

Environment Training Assessment

XYZ Food Facility	Environment Training Assessment	
	Written By: A. Priestly	Code: RCD T9.2

Name: _____ **Date:** _____

Circle True or False for each of the following statements:

1. Cracks in the walls are okay as long as they look clean	True	or	False
2. Windows can be open in the dry storage area and the lunch room	True	or	False
3. The gravel perimeter around the facility must be at least 1 metre wide	True	or	False
4. The roof doesn't need to be inspected	True	or	False
5. Hand wash stations must have warm running water	True	or	False
6. Hand-held glass thermometers are allowed in the facility	True	or	False
7. Potable water means that you can drink it	True	or	False
8. Pipes that carry potable water don't have to be labelled	True	or	False
9. Condensation is okay because it's part of the processing that we do	True	or	False
10. Wood is okay if it doesn't come into contact with food	True	or	False

Mark: /10 **Passed: Y – N** **Trainer:** _____

A passing grade is 8/10

EXAMPLE 19

Environment Verification Procedure

XYZ Food Facility	Environment Verification Procedure	
	Written By: A. Priestly	Code: SOP V9

Who: Food Safety Coordinator

When: Annually

What:

Verification of Environment Records

1. Review the previous month's records (RCD P9.1.1 – P9.7.2) since the last verification, to ensure that all the tasks were completed as scheduled
   - Review the documentation to ensure it is complete:
     - Mistakes have been crossed through with a single stroke and that pencil and liquid paper have not been used
     - All deviations and corrective actions are recorded on the record and that the corrective actions were appropriate
     - Records are signed and dated by the designated employee
     - No blank spaces were left on the record, "N/A" was recorded if necessary
     - No evidence of falsified entries
     - If food safety may have been compromised, effected items were put on Hold and a Food Safety Assessment was conducted
     - If there are repeat deviations, a root cause analysis was conducted

Verification of Environment Procedures

2. Bring the procedure(s) with you and meet with the designated employees
3. Observe the designated employees performing the tasks as written in the procedures from P9
4. Upon completion of verification of both the Environment records and procedures, record all deviations and corrective actions before signing and dating the RCD V9.1 Environment Verification Record

Deviations:	Corrective Actions:	Records:
Records are incomplete	• Investigate why the record was not complete • Retrain the employee and record the training	RCD V9.1 Environment Verification Record
Employee not doing what is written in the procedure	• Retrain employee on the proper procedure and record the training • The Food Safety Coordinator may consider revising the procedure to reflect what personnel are doing if it will not compromise food safety	
If food safety may have been compromised	• Inform Area Supervisor. Follow Hold Procedure SOP P3.2.1.	
If deviation is recurring	• Perform a root cause analysis • If necessary, retrain employee, remove employee from these duties and/or begin the disciplinary action process • Record training	

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EXAMPLE 20

Environment Verification Record

XYZ Food Facility	Environment Verification Record	
	Written By: A. Priestly	Code: RCD V9.1

Who: Food Safety Coordinator

When: Annually

What:
Observe the designated trained employee while he/she carries out Environment activities to ensure they are following the procedures as written and that the corresponding records are being completed appropriately and are current

A"✓" indicates that the criteria have been met
An "X" indicates that the criteria have not been met
Record any deviation(s) and corrective action(s) on this record

Date:	**Verified by (sign):**

Procedure	**Procedures Followed** ✓ X	**Records Completed Correctly** ✓ X	**Deviations**	**Corrective Actions**
Exterior SOP P9.1.1 RCD P9.1.1				
Interior SOP P9.2.1 RCD P9.2.1				
Personnel Facilities SOP P9.3.1 RCD P9.3.1				
Equipment SOP P9.4.1 RCD P9.4.1				
Temperature Control & Ventilation SOP P9.5.1 RCD P9.5.1				
Sewage & Liquid Waste SOP/RCD P9.6.1				
Glass & Brittle Material SOP P9.7.1 SOP P9.7.2 RCD P9.7.1 RCD P9.7.2				

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Program Review

Why is it Important to Conduct a Program Review?

Once your GMP program has been written you will have reached a huge milestone but the work isn't over. Because processes, products, ingredients, processing aids, packaging materials, equipment, facilities, chemicals and personnel change, you have to be checking frequently that:

- Your program meets the *Advantage* standards
- The program you have written is still suitable for your operation
- Employees receive the correct training as scheduled

The Program Review standard requires that you have a procedure with a predetermined schedule for checking all of your written programs. Your procedure should follow the format of other GMP procedures (Who, When, What, Records, Deviations and Corrective Actions) and should include a comparison of your written program to the current *Advantage* standards as well as your logbook entries. This will ensure that all changes were tracked and implemented as well as ensuring the written program is still applicable for your facility operations.

The program review standard also requires you have a procedure to review, on a pre-determined schedule, your training documents and records to make sure that your training meets the *Advantage GMP* standards and that your training matches your written program. The program review procedure includes a review of your training records to make sure that employees have received appropriate initial and refresher training. In other words, if your written program has been changed, your training procedures must also be updated to reflect the change.

Your program review does not need to occur all at once. For example, if you have decided that you will review your program once a year, you can plan to review one section a month, as long as each section of your program is reviewed at least once a year.

Program Review

Program Review

This standard applies to the GMP, HACCP and HACCP Plus programs.

This standard applies to the *Advantage GMP, Advantage HACCP* and *Advantage HACCP Plus* programs.

A written program review procedure and corresponding records are in use to ensure:

- The written program meets the current *Advantage* standards and is current for the operation
- The training program reflects the facility's written program
- The training records are completed properly
- Personnel receive the appropriate initial and refresher training

The program review is completed at minimum once per year.

Suggestions to Meet the Standard

All sections of the food safety program need to be reviewed at minimum once per year. If you continue on to complete the *Advantage HACCP* or the *Advantage HACCP Plus* programs be sure to include all related standards and forms in the program review.

Develop a procedure and corresponding record(s), which include (see Examples 1 & 2):

- A method for comparing the facility's written program (e.g. policies, procedures and records developed in "P", "T", "V", FSMS and Document Control, Program Review, HACCP forms) to the *Advantage* standards. Remember that ALL policies, procedures, records and corresponding standards need to be reviewed. You do not have to review the entire program at one time, you can create a schedule which indicates what documents and standards will be reviewed and when.
  - Indicate what sources you will use to get current information for the *Advantage* program standards
    - By phone: call 1-866-641-3663 (FOOD) and ask if there were revisions from the previous date of your program review.
    - Check the OMAFRA webpage: *www.ontario.ca/haccp*
  - You may also want to review new scientific information for your product and/or commodity
    - One source is The Food Safety Network (*www.foodsafetynetwork.ca*) webpage or calling 1-866-503-7638 OR through your applicable association
- A method to ensure the written program is current for the facility's operations. Items that could affect the food safety program and may introduce program changes are;
  - New ingredients, processing aids, products or packaging materials
  - New processing lines, equipment, chemicals
  - Structural changes/renovations
  - New contractors (e.g. pest control)
  - Discontinued product, equipment, processing lines or chemicals

Program Review

Suggestions to Meet the Standard

- A review of all changes entered into the logbook. These changes should be compared with your facility's written program, to ensure all changes were logged and implemented.
- Instructions to ensure that any product or process change within the facility is reflected in the program at the time of the change and should not be postponed until the Program Review is scheduled. All program changes should be entered into the logbook at the time the change is made (see the Document Control standard for more information).
- A method for:
  - Comparing the facility's training program to the facility's written program in "P"
  - Reviewing training records to ensure they have been completed properly and that all employees have received the appropriate training
  - Reviewing the existing training material to ensure there have not been any changes to the program since the date of the last training
    - Remember to include a review of the training schedule:
    - All employees who are currently employed are listed on the schedule (e.g. compare the training list with the payroll list)
    - All employees who were scheduled to be trained were actually trained using the correct procedure. This is usually performed by comparing the training schedule to the corresponding training records that the employees are required to sign during the training session.

EXAMPLE 1
Program Review Procedure

XYZ Food Facility	Program Review Procedure	
	Written By: A. Culverwell	Code: SOP PR

Who: Food Safety Coordinator	**When:** All GMP documents will be reviewed 1/year, between May and June

What:

Written Program

1. Call 1-866-641-3663 (FOOD) to ensure we have the most current version of the *Advantage GMP* program and that there have not been any additions/deletions since the last printing. Compare the written program to the most current version of the *Advantage GMP* program
2. Ensure that the written program has been updated to reflect changes such as:
   - New ingredients, processing aids, products or packaging materials
   - New processing lines, equipment, chemicals
   - Structural changes/renovations
   - New contractors (e.g. pest control)
   - Discontinued product, equipment, processing lines or chemicals
3. Review the log book to ensure all changes were entered and at the time of the change

Scientific Information

4. Check for any new scientific information by accessing the "Food Safety Networks" webpage
5. Include any new scientific information regarding, new or emerging pathogens, new processes or technologies, in the "XYZ Food Facility's" GMP program if it applies to our specific product or environment
6. Add any changes made to "XYZ Food Facility's" GMP program, to the "Document Control Logbook", dated and signed

Training Program

1. Review all training material to ensure it is current and matches the facility's written program
2. Ensure that all appropriate employees are identified for training on the training schedule by cross-referencing Human Resources lists (e.g. new hire lists) and the training schedule
3. Ensure that identified employees were trained at the correct frequency by cross-referencing the training schedule with training records
4. Ensure all training records are complete by reviewing all training records

Deviations:	**Corrective Actions:**	**Records:**
Written program does not meet new *Advantage* standards	• Update written program to reflect change. Update all associated documents and train personnel if necessary • Update logbook	RCD PR Program Review Record
New process/equipment not reflected in written program OR written procedure no longer applicable to operation	• Update written program to reflect change. Update all associated documents and practices • Update logbook • Retrain relevant staff to update written program when changes occur	
Training program does not match written program	• Update the program immediately and retrain the designated employees • Follow Hold Procedure and perform a Food Safety Assessment	
Designated employees not trained	• Follow Hold Procedure and perform a Food Safety Assessment • Train the employee immediately	
Training records are incomplete	• Confirm that the designated employees received the appropriate training, retrain the trainer on how to properly complete records	
Food safety may have been compromised	• Follow Hold Procedure and perform a Food Safety Assessment	
If deviation is recurring	• If necessary, remove the employee from the duties • Complete a root cause analysis	

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EXAMPLE 2
Program Review Record

XYZ Food Facility	Program Review Record	
	Written By: A. Culverwell	Code: RCD PR

Who: Food Safety Coordinator
When: 1/year, between May and June
What: Using the Master Document List, review the entire written and training food safety program by comparing the program to the current *Advantage GMP* standards and the facility's operation. Cross-reference the employee list with the training schedule and records to confirm that all employees received the correct training at the specified frequency. Write "Yes" or "No" in the columns to indicate your findings. Document changes to the written program in the Document Control Logbook.

Section	Program & Training Material meet requirements of the *Advantage* Program	Program & Training Material Match Facility Operations	Appropriate personnel included in training schedule	Appropriate personnel received training at the required frequency	Training records include the date, type of training, name of trainer and names and signatures of participants	Logbook is current Yes/No "NA" if a logbook change was not necessary	Deviations Corrective Actions
Food Safety Management System	Yes	Yes	Yes	Yes	Yes	NA	
Document Control	Yes	Yes	Yes	Yes	Yes	NA	
Personnel	Yes	Yes	Yes	Yes	Yes	NA	
Receiving & Shipping	Yes	Yes	Yes	Yes	Yes	NA	
Handling	Yes	Yes	Yes	Yes	Yes	NA	
Sanitation	Yes	Yes	Yes	Yes	Yes	NA	
Preventative Maintenance & Calibration	Yes	Yes	Yes	Yes	Yes	NA	
Pest Control	Yes	Yes	Yes	Yes	Yes	NA	
Recall	Yes	Yes	Yes	Yes	Yes	NA	
Water	Yes	Yes	Yes	Yes	Yes	NA	
Environment	Yes	Yes	Yes	Yes	Yes	NA	
Program Review	Yes	Yes	Yes	Yes	Yes	NA	

Scientific information reviewed: Yes, and no new findings at this time

Reviewed by (print): John Smith **Signature:** John Smith **Date:** May 27, 2009

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Glossary

Allergen – a substance that causes some individuals to experience an immune system response, such as an allergic reaction

Biological hazard – any micro-organism or toxin produced by a micro-organism that can cause food-borne illness when ingested

Certificate of Analysis (CoA) – a document accompanying incoming loads that attests to the safety, quality or purity of a specific lot of goods, e.g. laboratory test results demonstrating a lot of raw ingredients is free of pathogens

CFIA (Canadian Food Inspection Agency) – an agency of the federal government that is dedicated to safeguarding food, animals and plants

Chemical hazard – any chemical agent that may cause poisoning when ingested or inhaled

Codex Alimentarius Commission – a commission set up by the Food and Agriculture Organization (FAO) and World Health Organization (WHO) of the United Nations to develop internationally recognized food standards, guidelines and related texts such as codes of practices

Consumer Packaging and Labelling Act – a federal act that provides for a uniform method of labelling and packaging of consumer goods as well as prevention of fraud and deception by provision of factual label information

Corrective actions – measures taken to regain control of a hazard, to determine the disposition of affected product and to prevent a reoccurrence of the problem

Cross-contamination – the physical movement, or transfer, of harmful micro-organisms, allergens, chemical contaminants, or any foreign substance from one person, object, food or place to another

Develop – the process of creating your GMPs, usually referred to as the phase when you are writing your program

Deviation – failure to meet a GMP system requirement

Disposition – the decision to rework, reuse or dispose of suspect food, ingredients, processing aids or packaging materials

Documentation – general term used to refer to all of the written parts of your GMP program including policies, procedures, records, schedules, checklists, schematics

Due diligence – actions that can reasonably be taken to prevent illness or injury

Glossary

Environment – the outside and inside of a food processing facility that could impact the food safety of a food product, which can include; equipment, ventilation, water, storage conditions, temperature etc.

FIFO (First-in, First-out) – a rule for rotating stock so the oldest items get used first

Food and Drugs Act – a federal act that established regulations regarding food, drugs, cosmetics and therapeutic devices

Food Safety Assessment – a tool for assessing and making a decision whether food, ingredients, processing aids and packaging material are safe to use

FSMS (Food Safety Management System) – a requirement of the *Advantage GMP* for a policy and procedure to ensure all applicable laws are being met

GMP (Good Manufacturing Practices) – practices, policies and procedures that promote effective hygiene and the processing of safe food

HACCP (Hazard Analysis Critical Control Point) – a tool used to analyze food safety hazards specific to your process. For more info see Book 3 in this series, *Advantage HACCP*.

Handling – a general term which describes transporting, processing or storing; food ingredients, processing aids and packaging material; within in the facility

Housekeeping – the ongoing, routine steps taken to maintain a tidy processing environment

Implement – the process of turning written GMPs into a reality, includes the training of employees on GMP procedures and putting the procedures into practice

Legislation – the laws, Regulations or Acts that legally must be followed

Letter of guarantee – written assurance from a supplier that their products meet specified requirements (e.g. their products do not come into contact with specified allergens)

Maintain – the process of making sure GMPs are running properly over time, includes on-going refresher training and verification

OMAFRA (Ontario Ministry of Agriculture, Food and Rural Affairs) – a provincial ministry dedicated to rural Ontario agriculture, and food sectors. Responsible for the development and delivery of *Advantage GMP.*

Operational control – activity or action that can be taken to control a hazard. For example, instead of sloping your floors (a physical control) to control pooling water, you could have an employee squeegee pooling water toward the drain.

Glossary

Organoleptic testing – tests using one or more of the five senses; smelling, hearing, seeing, touching or tasting

Pathogen – a micro-organism that can cause illness or disease in humans

Policy – a statement of a facility's food safety rules, most often seen in the Personnel and Handling sections

Practices – a general term that is used to refer to any GMP activity, procedure or task

Prerequisite programs – another name for Good Manufacturing Practices (GMPs)

Procedure – a specific, step-by-step instruction to perform a GMP task

Program – a general term that can describe all aspects of GMPs including, procedures, policies, records, and training

Processing aid – a substance used in the processing of a food product that is not present in the final product

RCD – short-form for record

Record – documents that are usually written on to capture specific information about GMP tasks to provide proof that GMPs are being adhered to

Root cause analysis – determining and evaluating the source of a problem to address the source

Section – a component of the GMP program that includes Written Program, Training and Verification standards. There are 9 *Advantage GMP* sections: Personnel, Receiving & Shipping, Handling, Sanitation, Preventative Maintenance & Calibration, Pest Control, Recall, Water and Environment.

Standard – the requirements of *Advantage GMPs*, the blue box on each standard page

SOP (Standard Operating Procedure) – a common short-form for a procedure, also used for policies in the examples in this book

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